

<400> 8288

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agggctaaaa atgcatttca agccccagct gaaaaccaac tggagagggt gaggcaaaga 120
gagaaaagga gagaacacaa acttggtgct gggagtagag gctgccacct gctccctatg 180
gacatttgca aatgctgggtg aatgactgga ccctccagga atagtgccct gacccatagc 240
ccaaaatgta tccaagtgga gaacatgcag agcccactgt cccaggagaa ctccccctcc 300
caaagggtga cagaacacga agtagactgt atatgaaggc aatggacagg gcagatggag 360
tgtttagcatc actctcttta ggcacttggtg taaggaatgt aggctctcca gtgagctgcc 420
tncnccaga gccctccatt ctggtcttca actgggcttg tgcctatagg gcaccccatg 480
ctgtaaccng canggaaaaa gtaaaggggg agnttcttaa caancctgag gcttnttcaa 540
aangaaggtt gg 552
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<210> 8289

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8289

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gaaaaatggt ctgaaatttt tcaagtcaat gttgttttca agtatattaa aatgctcaga 180
agaaaaaatt ctccatggtt ataattctga tcaatctata aatgtacttt ttaaaagaga 240
gttccaacag aggtggataa taggtaagtt cctcagacac aggcatacag tctttttgaa 300
gaaatagaat gccttggtac cacaacctgg ttgatttttt ttttttaaac actgatttca 360
ggcacaatgg ctgaatccac ttctgggtca tctttctcct cctcttggtt ggtttacaag 420
agtagtgaat acttcagtta tggacagaaa gaaagacaca aactctgaaa cggagacttc 480
acttttact acaaaggaat caaagtcact gagttctcat tggttgggggt ggaatctgct 540
gnccctgtgc caaaaatag 559
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<210> 8290

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8290

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gcaatttatg ctttttattg tatatatatt ataactcaat gaaaatgtta tatcatatat   60
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acacacacac atacaccctt atatatgatt atggcagcct tctacttctc caacgcattc  180
ttttttttgt ttttttgaga cagagtctct gtgtgttgcc caggcttcaa tgcaatggca  240
tgatctcagc tcaactgcaac ttttgccctc tgggttcaag tgattctccc gcctcagccc  300
cccaagtagc tgggagattg aggccgcggt gagctgattg tgccactgca ctccagcctg  360
ggatagagcg agaccttgtc tctaataaat acacaagcaa aatccaaagt tcgctttgga  420
ttgctagccc atcaaaaagg ctagctcctt gaagggtgga attttgcca ctttagttcc  480
ctgctgcatg cccagcaact ggaacaagtg cttgcacat agtangtgct cagtaaagt  540
gaaggatgaa tgaanac                                     557
    
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<210> 8291

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8291

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gcaaagaagg aatgaaggga tttattgaaa atgaaagtac actccacagt gtgggggtga   60
gcctgagcat aggagcacia aagccctgtt acagaacttc tgagagttta aataccctct  120
aggtgattcc atttggttact tggggcacac gttatgtaga tggagagcct gttacagaac  180
ttctgagagt ttaaacaccc tctaggtgat tccattgggt acttggggca cacgttatgc  240
agatggagag gatgaagtta caaagtcatt tgcttggcct atgtcctatg gagaaggat  300
    
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ttcctatcat aactgaagtg tgaatcagcc tatgttccct gcactcagac cctattttcc 360  
 tgcctcctac ctacagctgt gtggctctga gctgtcacct cttccctttg aagctcaggt 420  
 tcctcatcgg taaaatgagg cagaaatact cactgctgan atgtgtgagg atcgcacaaa 480  
 ctcagtgtct caacatgttg tacntgtgtt tgggccctct gagcccttga ggcttgcccc 540  
 aggtggaac 549

<210> 8292

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8292

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 cgcatttact atcatctcat ttgaaagctg atgtgtttgg gctgggtgat ggcagagggg 120  
 tgggagttgg gggatgctgg ctctgaaatg ccagagaggc attaagaact ctggaagcat 180  
 ctggctactg gtagacattt tacacagata gcaatttctg accaatccat ttcaatgatt 240  
 tctaaccat actcaactat ccagaggata ctgttttaag aacattattg taaactgata 300  
 ctctctattc atttacaaaa ttcatcatt gcatactttt tgtttaatag cttggattca 360  
 gtgttacaga tttgattgac ccaagtga aaatactgac actaatcatt ttttaagtgt 420  
 atttcagaag aatatgcgca atgtttctaa gttattgtga ctttgtgact gtcgtagctt 480  
 taaattataa tactaatatc ctactctgag aaatgtgtaa gacacaggtc taacaaacaa 540  
 ctacattaac ctgc 554

<210> 8293

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8293

gncctccata tgacactttc attccccata cttttctgtg aagaaagacg cagaggttagc 60  
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 atgggagatg aaataaaatg agcaagttct gaggggtgat ggacagatca aaaacagatg 180  
 atcttcaaga caacataatc acccataaac gtggtaaaac aaaaaattac acttccaatt 240  
 tgggtgaaag agtgccacct gctgacactt tctggaataa ggtagtttag cccatttgaa 300  
 agaagctgta ttgccttctc aaaaacaacg aaaacctact attgatcaat gaaggtaaca 360  
 agatataact tcaacaaagt aaaacaacga acacataatt atcccacaaa ataagaattt 420  
 aaataaagaa ttatcaaacc tggaattcta ctctgtcaa ttattgnttc tggcatatgg 480  
 taggggttca aaatacattt gttggagcga attctaacat agtactattt agttttctga 540  
 aaatcctgna atgn 554

<210> 8294

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8294

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 atgagtgaga cgcatcaaag agcttccttc tgtactgact ctgttggtta ctacgttttt 180  
 caatctgttt ttccagctct tcaacacttg ctgcttggtc acctcatcc tcattctcac 240  
 agatatcagt cttttttcct tttttgtctt ctttatcttc ttcatcctca tcattctcat 300  
 ccccttggtc atcactgtca tcgtcatcat catcgtcata atcactgtct cctcccttcc 360  
 ttcttcgctt gcgtcctgga gtgggtgtgc ccaagggatg ttgtcttctt cccagatcaa 420  
 tgccacctga agtgtctctt ttgcctgttt tcttagcatg aatgattctg agcttgcgga 480  
 gtttaccttc taccacccat ttatctctcc tcaagttgac atataatcaa ngtcttgncg 540  
 attcactgac cn 552

<210> 8295



<211> 551

<212> DNA

<213> Homo sapiens

<400> 8295

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ggtattcctt ttattataat gttttaaact tggcttaaag ttcaaaatac tatttccaga 60
taactttcca ctgttacatc aactaggcaa ctttgttatg tttatgttat atgtatcagt 120
tacttatcag cacagaatth taaccactct gctaaattht gagaaaacag ctaaactcaa 180
tataaaattht ggcctacaga attatagtgg ctatthgtta ctaaaaatat tccaaaagaa 240
atttacttat tttactatat tccatattct ttaacttaaa atctgctgcc actgtthtagt 300
aaaagtggga caaataaaat tctthaaat atagaaaata cagttcctgt taagatthtg 360
caaacaaaaa attaataaat aatacaattht gagtactcta aaacaatata ctttgtagtc 420
tagattgtgg tthtggtcag tatgtctgac actatgaaga tttacatcag ttcagggaat 480
gagttctaath ctattaataa atagtcaata taaccaaaca cctgacagga ttcccatat 540
gaataththt a 551

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<210> 8296

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8296

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gtttccagaa gagaaattht atctaattth catacttcta ggtacatcga taaccaaath 60
gtggccactg aaaaaagtth aaaggthaat cagctcctgg cttctagctg gccaggatt 120
gcaaaataaa aagatccacg ttccttattc tctacacaaa acgcgtthtth aaaaaagtga 180
aaggthtagg gagctataca tagaaagcaa cagtgaagag ggagagggag caggagthgg 240
ggaggagagt cccaccccc aacccccacc tccagggcc cagagcccct gaggctctth 300
ggggggcctt gacatggcag gaggcagctg tcagctctga gctcttccca gctgggaagg 360
ccctctcgg gggcagccaa caaggattht cgtggcattg tgggctcagt ggggggctcc 420

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caggccccag caggccccac agaggggagcg tggcttccct gagcaagcac cgtggcatga 480  
 tgtggtcggtt caaccagga actgggggtn cngggcaagt cccgggtctt acgaggtgcc 540  
 tgtttgtgtg tggt 554

<210> 8297

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8297

cacagaaccg gagtatttta ttgcaccaag atcttggcaa cacgtggggc tccccaggcc 60  
 cccggaaagg aggtgcagag gatgggacac agacctctgc acacacacag gtgcggccat 120  
 gcaaccagga cgcggggcag gcaagtgaga ggacctggga gaggtagctg ctgtacacag 180  
 gccccactcc ctccagctcc attcccaagc acaaaattca acagaccag atcctaagtc 240  
 aaccaagtga ctgctatgac aaaggcttgg gttattgaca ttacttaca tacgtgtaca 300  
 agacctagag tttgaactcg ttttctgggc ctcatctttc ccttcctat ctggttgatg 360  
 acttcggtgg agggaaggga cgtgactcca cccaacagtg ataaacgctg cagaaagtca 420  
 tctcgtgctc accactgccc aagaattaac gaatgtatgt accccaggaa aagggtttac 480  
 agttatctag tggagaaggg aanaaactga tttggaggaa aagaaggag agaaaggacc 540  
 cagataaatt tnn 553

<210> 8298

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8298

aataattact ctttatttaa aataaataag ccctcttact tacagggaaa atatgaaagc 60  
 aaactctgtc ctccctggtct aagacagaaa ccacattcag aatatgttca ttgaaaaagg 120

aaagatttgt tgattatcaa acaaattctag gtacttcaat acacattggt tctttgaaaa 180  
 ataaagactg aaaggaataa ttcatttcaa aaagtcacag gttagaaaac caattttcct 240  
 tctgaggctc attttagcaa atcctccaag tgttcccaaa tcttttaaaa aagctacatc 300  
 ccctgagaaa gggccctttc cctgtagccc tcttgctctg acaccagcag ccctgcaccc 360  
 ttctgccaag tggctccctg caggacggtg ctgttgccgg gcaggaatgg ccctccatgg 420  
 caacctccag caggcaggag ctaccacct gctttctgca aactcactca cttggctcag 480  
 ctattctgca atggaanagga agttccttac agccaaagta ttctaagntc acattttinca 540  
 gtt 543

<210> 8299

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8299

aacttgtctg tattttctgt tattctacca caaatttctt tcaactcttt ttataaaaaat 60  
 gcctgtctcc ttagttgacc tctaagtctc taggttcttt ctttttcttc ttttcttttt 120  
 cttttttctt tttttgagac agagtcttgc tcttggtgcc caggctgaag tgcaatggcg 180  
 caacataggc tcaccacaac ctccacctcc tgggtttatg tgattctcct gcctcagcct 240  
 cccaagtagc tgggattaca ggcatctgcc atcatgcctg tctaattttt tgtattttta 300  
 gtaaagatag ggtttctccg tgttggtcag gctggtctca aactcccgac ctccaggtgat 360  
 ccgcctgcct cgacctccca aagtgctggg attacaggcc tgagccactg ctcatggcca 420  
 gttctttcat tttttgagtt tctgtttctg atctaaagtt taccactggt ttccaatttg 480  
 tttgtgaagc anagaatatt ggcacactta gttgcttgca taaacattcc tttcctataa 540  
 gatatagn 548

<210> 8300

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8300

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aatagggat gacatttctc catgtttgtc aggccttgga ctctctacgt caggtgatcc 60
atccaccac ctcggcctcc caaagtgtg ggattacagg tgtgagccac tgcgcctgac 120
ccttgtaggt acttcttaaa gctatggggt tttcccagag cttggtagca tgtgtgttca 180
aagggtatc aatgttgagt tgtcctagca ggcactggat agagagcagg atggtcctga 240
tatcatcagg ggcagaccac ttctccttca ggatgtccag gcatatgtta ccctgggtgt 300
ccacgttagg gtggtagcag ggtgtgagga acttcactgt ggggtgcatcg taaaggtggg 360
tagtcattga ggaactccag caagagctta tacctcagat cttcatacac tgtgccagct 420
gcttcatgga tgggtgtccat ttgataaggc tttcagggtta ggcagaaatt cttttgtcac 480
caggcatcat gaggggtcat caacttctgc tgtacctttt ggctacaggg ncccaagcaa 540
tgnccctgnt gg 552

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<210> 8301

<211> 499

<212> DNA

<213> Homo sapiens

<400> 8301

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actgtttgtt ttttnccaac agagttncgg tcttgttgcc caggctggag tgnannggca 60
tgatcttggc tcaactgcaat ctctgcctcc caggttcaag cgattctcct gcctnagcct 120
cctgagcagc tgggattaca ggcatgtgcc accacaccg gctaatttta tattttagt 180
aaagacaggg tttctccatg ttggtcaggc tggncctgaa ttcccacct caggtgatct 240
gcccgccttg gctcccgaag gtgctgggat tacaggcatg agccaccgng cccggncctac 300
tagtgtttta tctttgattc tctgtcagcc ctcacccctg gttcttgcct ttcttgatca 360
acaccttttc ttgcctnigt ccccttctct cctgtatct ctcactcccc tccaacctgn 420
gggacagtgg tgtggangag gaaccatagg cctganagtc catctgactc cttnctggac 480
ccanaagcan gagaaggng 499

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<210> 8302

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8302

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aatgttcag tcttttattt aaaaactata aacagtcacc aaagtaaata aagccattct 60
ataacataaa ctgttaggtc tatatTTTTT actgcacatc ctaaggacac agcagaaatg 120
gtggttggga ggccttccac atttttggat gctaatagaa caggcaatag gcagttataa 180
atggatacat ttcacgctgg gggaaaaaag acaatttaag gaagtgagca gtttctgagc 240
aggaatgtgg tacagtatta agaatggaag aataatacaa taaaattcca cactatatta 300
agatagaaaa agtagtgaag aaaatatcat acctgcacat aatgcatata taacacagga 360
gaaaacctgt ataaaattcc atgtatttaa accaatttac aaatacaaaa aattctgtcc 420
aagctctgag cttgtacacg acaaacgttt acagtggata catgttaagg aaaaccaaaa 480
aataccttca aatagttttt cttcttaaaa aatgacctga gatatattat tccatactct 540
tttagccngc aaaatgaggt 560

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<210> 8303

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8303

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ggcataacac aatcaggctt tttttttttt ctttttcctt ttaaataataa ggcaacttgc 60
caacacataa cttaaaactg gtcttcagtc acattgcttc agatcactag agaatttctg 120
gctaacgaac agtagtggat agtgaacaaa atgcaaaacc ttaaataaga accatcagct 180
gacattcccc agagacaaga ggaaaggtaa gggcttattt catctgtaaa aaataaaaaa 240
gcccaattct gcatctttta cagaatggtg caaaaatttg taacaaaaca gtctaagttt 300

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aaaattacag aaaagtgttt ctagccaact aattgtcgct tgggatgaga cgtgctgagc 360  
 atggagtgga tgaaggatat ctctaagaat ggacagaggg caggaggggc ttgtttccaa 420  
 tgtaggccca gcttcagggtg ttagaaccat gctcatttgg taaangaagt ctcaaagagc 480  
 ttaangcttt gggttggttt ttttttcctt cattaaactg aggggctgca ctaanggtga 540  
 atctacctgn ggg 553

<210> 8304

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8304

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 attgttacia aaaatttaca tacagttttc tgaaagtggc attttgttgg ttgttattat 120  
 actgatgaca catattaaca ctttgtattg aagaagtatc ataaaaatca cagggcatta 180  
 cagatttttg ataagaagta gtaatagcat tgtcttttaa cagctggagg ctcccaggca 240  
 tactcttttg tgagaaatga ttaattttat attttcattt tgatgagaat cttttcttgt 300  
 tttaccagt tataaaaaca aagctttttc tttgttgtga tactgtgcac taagacttag 360  
 tttcttgagc tgatgctaaa taaaatgaga tcaataggaa tattccagga ggctgtgaga 420  
 agtttttaga aaggatggca tctacatata tatggagctc tgaaaactgt tggagagtat 480  
 gacctgggac tgaaactgtg gagcacatag ccaggtcaca ngcttcgana gcnnaaagag 540  
 ttgctctg 548

<210> 8305

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8305

agtataataa ctttttattt gacatctaca agattttggc atcttgcagc tttttaccag 60  
 gtttatacaa tctcgatttt tcaatagtgc aacctgtgga agcaaaaaaa aaaaaaaaga 120  
 aaaaaaagaa aaaaagaaaa gaaagaaaaa gaaagaaaag ataaaaagac caactgtccc 180  
 ctcaattgtt tttataaaca tctattatag gcgaaacaaa acttaccat attatataga 240  
 taagtgtcta ttcacatttg tacattacca tttttaacag cttgagataa actctacgtc 300  
 ttacaacaca ttaaacaata ttcaagttac tgagtaacaa caataacaac aataacaaaa 360  
 gaacacacag cagaagcctc aagtgtttcc tcattgtcta caactcaggt atggtttcct 420  
 ttttatgagt gacaaagcaa attaagataa tgaagtaaaa aacgattgtt tgcaagatga 480  
 aagccaattt gnacttcctt ctaaaactac ctttaagttg caaatgtaaa ttttaagaagc 540  
 tnatagccnt 550

<210> 8306

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8306

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 cacgggaacc gcattctctt ccattgcagc tacttggcag gtggcgggat gtcccccagc 120  
 caccgacgtc cccctgcctg ctccgcaacc ccagggcctg cagaaaaggc ccacgagact 180  
 cagactggca gagacttagg cggaccagga acaggggcgc agtctccgtc ccacccaaac 240  
 cctaaccaga gagaacacgg cacgttgtgc cagacggagg acggatgcc a gcgagggtcc 300  
 atgtcctcac tgccgacaag gctgggagct gggccaagtg aagcagaggc ctncacgtca 360  
 gatgtgagcg ccaccggccc aggtgactgc agttcttccc tccttccgtt cggcttgagc 420  
 ccttcagagg atcggaaggg ctgaagcctg acctggtgcc gttgtcctgg gtgggtctgt 480  
 cctgctggtc ggttctgncc ttttcgggag gttggctggc acttgcangt ggaaagcttc 540  
 tngttacct nagggaag ngg 563

<210> 8307

<211> 570

<212> DNA

<213> Homo sapiens

<400> 8307

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ggagagagat gtatttatac cagtggggct aaggaggaag cagtccagtg ggggactttg   60
agtgtgtgc agtgttctct taagagtcgt agtacagtcc tgggtcaag tctctttccc   120
taatctttgc tggggaagcc ttgagccttg atttatcctt cccttggtt tgggctttga   180
ggaagtggg gatggagggg atgatgcttc tttaggtttc tctattccaa gcccctctga   240
atttctagtt gcaacctgcc ttcacacaga gttgatggga aagattagtt gtagatgtcg   300
gtatgggatt gaggctacag caagaggaag aagggaactc cagtatagag tacacaaagg   360
aaaagggcag gaaagatacc aaaggcttat gaaaacaaag gaagggaaga aaagagaaaa   420
aaggtggaag atcagggtccc agattgcttg ttaggaagaa tgaggtaatt ttgggcctag   480
gaatgcacaa tccaaagctt gattttcacc acctncattg gtctcttcga gccttccttc   540
caaangttct tcccggctta aagccagcan                                     570

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<210> 8308

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8308

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cttgtcccat gggcacataa tttagaatac atgtctctcaa atgacaaaac atcaaagggtg   60
agaggagga ccaacaatga acatgatctt ttttaaaagg gggtaacaga aatagtaatc   120
ttttataatt ataaatcctc tgcataccat aaaatgattt ggtttagctt tcaaacaatca   180
tctaaacaaa caaacaagac agagagggaa gttcactgct ggggtttgca aagaagggca   240
tctgttcgtg ggcagatgct gcagggtggc tgctgaaaag ctccttttat gtgcatgatg   300
gtggtcttct cggctacagt acaagtgctt gtgcatcaag tataaaatac aagcctttta   360
tcacatagat cagcttttta gcttttgtaa atttaaaaac aaaaaggata aataaggcac   420

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tgtactttta aaaacgaaaa ctgcttggtt ccaagtttaa aaccaagga caccagaata 480  
 taatatataa cttccttacc tcagagaagg actctgcaag gttccttttc atctgagaag 540  
 catttctggc atctaa 556

<210> 8309

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8309

ctgtggatat tttaaaagtt tatttctatt ttaactagcc cacagacccc attctttgag 60  
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 tctgcacctt ccatcatgat gcacatttta agttaaaatt gccaatataa cccttaaaat 180  
 gcaagtttat tgaataaagc tgagaagagc agtaaacaga caaaaaatgc atccacctaa 240  
 ataaaaaaat tcacatattt acatagtcca gtaactgtta aaagttttca catgcagagg 300  
 ttaatgcaca ggaaaatggt ggtaatagcg tctggatgtc ttgaaatgcg gaaagcaatg 360  
 tatagacaca caaacacatt aaggtttagc tataggtcaa ttaacaaacc tatgcagtcc 420  
 ccacagagtc acacattcta gttccaattc ctccttttag gcacaagcaa gttggccaca 480  
 ttctttttna atgggtcaca ctggccatta anggggttga acaccgtnc caggttnaaaa 540  
 tnccttcatt tccgaanc 558

<210> 8310

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8310

gtttttgagg agatgaggtc ttgctatgtt gctccagctg gtccttcact tatttaatcc 60  
 taccagctag tgttctggta tctcctctga atttttaatt aatttcactt ccagagaatt 120

aagtattatt tttgttgaca gtttgttctc tcaaacggca ttgcatttag taatactttt 180  
 ttagttgttg gggtttttgt tttttcaa at gttactaatt tgtttccctt tccagctgaa 240  
 gaaatagtga ccaggggagt aaatattctc aggccactgt gtttgtatat tatggacaat 300  
 caagaaagaa ctaggggtatg ttagagacag aactccagag gtcaggtcat ctccgtctac 360  
 tcacttggtg gacttggcta agtcacgtga tctctctggg cctccatttc ttcacttata 420  
 aaatgggact aatactttca acctagtaca tgaaaagaaa atatgctgat tggacccatc 480  
 ctacttctgg tгнаacctta caccagagcc caggctgggt ggtcatggat ggtncctgc 540

<210> 8311

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8311

agggctgaga aaatattcag tttattaa at attgtgaatg ggtggaatat cagatacatc 60  
 atctcaatat gtaaatatcc tatcccatct caacatcaaa ttagattac ctggatttct 120  
 tctttgcttt tctctatgat tacagcagag atcattatgt atttatttag tttcttcagt 180  
 cttaaggta tttttggatg atgttcaa at aaactccaag ttatctccaa ctttttctga 240  
 acaaaatatt tccattctta agatacaggc ttgtaattca catacttgat gctactcaat 300  
 ggcgtcttat ctgtattttc ttctcacatt tgactccaga gtattcagtg cggcaggaac 360  
 acacattggg gaaatatgca tctgcctcca taaagacatt ttgggttgca aattggtatt 420  
 gacaccggac tccttncag gaggaaggac aatggcatat gctgggccca atgcattcac 480  
 caccgtttta ctttctgca agcnnaaang ngtgttgcat cgttcccact ccacca 536

<210> 8312

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8312

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ctcgagacag ggtctctgtc acccaagctg gagtgcagtg acacaatcaa ggctcactgt 60
agcctcaatc ttcagggtc cagggatcct cccatctcag tctccttggg agctgggagt 120
aggcatgtgc caccatgcct ggctaatttt ttaatttttt ttagagatg gggctctgtc 180
atgttgccca tgtcgggtc aaactcctgg gctcaagcga tactcccacc ttggcttccc 240
agtattggga ttacaggtgt gagccacat gtctggcttg cttctctttt tgtattctaa 300
aattcaaagg cctaagtatc aaatccctaa atctccaaat actgtcacag ataaagactc 360
aataataaac tccctccgaa agtttagaca ggctcaggtg agagacttgt tcaaggggtt 420
ataaaaagaa acaccagtgc tctgcagaag aatcaagttt ttaatttttt taaatgnatc 480
tattttaatg ggaataagtt gatcattaga atttgtaaac caaaanggta atttctcaag 540
ttt 543
```

<210> 8313

<211> 462

<212> DNA

<213> Homo sapiens

<400> 8313

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ctggaaacta aagattttta tttaatccaa atgttgcact ggaagaagaa atcaacagtg 60
gtatatttac ttaacaagga tgtgtgtaat acaagacaac cctggggatt acacacttga 120
aggaaatggaa gtggcaaagg ttaacaggca gaaagcagct ggatgaaaca gtttattttc 180
atcttagaag attctagcta tctgtggaga ccaccactgt tccccgaaaa gctaaagttg 240
ttaagtttgt aggagtacca caggctcttc cccctgctgc aagacagaga ctgtctctgt 300
tgcccaggct gcagtgcagt ggtgcaatct cagctcactg caacctctgc ctcccgggtt 360
caagcaattc tctgcctca gcctcccatg tagctgggat acaaggtgtg tgccaccatg 420
cctnggttaa ttttnggant tttagtanan attgngntt ta 462
```

<210> 8314

<211> 491

<212> DNA

<213> Homo sapiens

<400> 8314

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ctttgtccaa tgattaatat ttgatatct attgacaatc ccttagaact ttaaattctca   60
aaaacaaaaa agtactgtgg atctccatag ttatacaga attatgtgaa ttctataaac  120
ttttctgaac aaaacaatta catgtcaaga atccatgaag cctggaagat acgctcacgt  180
ttttgaggtt tgtattaatg ccagttttta ttgtattaga caaatgctct ctgagaatcg  240
aagacttcta aaggtagaca ggcccagttt cccattagag ttctggaagc agagcctggg  300
gaaggtctgt cacttgccca tcactggacc agccagaagc cagcgggggc caggcgggggt  360
ctgcaggctg caggtccttt ccagtcctgt cctgtctgcc ctttggggac catttttggt  420
aanaaccttn gccggttgnc ctggaanctt cnagcnccct taccttaggc ctaaanggtt  480
cctgaaaccc c                                                    491

```

<210> 8315

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8315

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ggagtaggca tgggtcaatg attgtttatt gaataaatTT actactggag taagaagtgg   60
cttagagtcc agtgtaacat ggtggctggg agtgtgagtg gatgaatggg gggcccgata  120
taggaactgg ggccctcgggg atgaggccga gttccatcct gccttcttcc acgaccatcc  180
ttaccttccc acccccaccg ctcccattct gcagatgaga aaaccgaggc tccgaaagga  240
aaaaccactg cctggattcc cacgcctctt ctttaactca tttgcagggt agggcaggga  300
aggaaaatcc tagggtcagc attggggagg gggggactct cctaaattta ttgggcaaca  360
ggctgcaggt ganggggctg acaggaagaa gggtcggggg tgtnaataac cttaaaaacc  420
gtaggtgaca acnggaagtt ctttaagaan accnttgccn aagggaagg ttttgggggg  480
ttttccaagg gttttgccaa aaggncctcg gccaaacctt gggccagaaa atgggggttt  540

```

tannccttan gggnt

555

<210> 8316

<211> 467

<212> DNA

<213> Homo sapiens

<400> 8316

```

aaagatagag ttttgctttt gttgctcang ctggagtgca gtggcacaat cttggctcac   60
tgcaacctct gcctcccagg ttcaagtgat tctcctgcct cancctcctg agtacctggg  120
attataggca tgcgccacct tgtccggcta attttgtatt tttagtatag acgggggactc  180
aaactcccga cctcaactca tccgcccgcc tnggcctncc aaagtgctgg gattacaggc  240
gggagccacc gcgccggggc atcttagatc ttagagccca ctttagtcct tgaaatacat  300
ctgagaagcc aatggcagcg aatgacggtg cccgcctgcc ccaggcacct tgggtggggc  360
aggccctgct tcaggagggtg gcggccactt cngggatnac tgatgcagcc ccnaccceca  420
tggtttgtcg ggactaanct gngtcttnaa ggtntgtgaa acttcca                    467

```

<210> 8317

<211> 509

<212> DNA

<213> Homo sapiens

<400> 8317

```

caggtaaaac cacattgcct ttatttggct aaagaacaaa atccaaaata actcagaaca   60
aactaagaac agacaggaaa attacagact gaacccccact tgaggaagac ttccccacgg  120
actcacactg gtgatggggc gaacgttcaa gacgaagcca gcagtccttt ccaagactct  180
tttgtctttt agggatcctc aatacaaaac aaccctaata atccaggata tgtgttcaaa  240
acagtcagtt ttccccctca aaaggcggga aggcccaactt caaacctcca ggaacacaac  300
ccaagtcatc ccagtgttaa acctgggtgct tccgttttct gcctcaatcc gagcgctaac  360

```

ataaaatctt ggcagacaac aatctttctt tttcaagaaa attaacattt aatgggataa 420  
 tccaagaac atggtctact taatttgctt tggaattn aaacttnggg nccctntttn 480  
 ttccaaggg cngtntttt ttttgagaa 509

<210> 8318

<211> 518

<212> DNA

<213> Homo sapiens

<400> 8318

aactttacaa aatttgttt atatctgtta gaaaatgtac agacataagt attttcagtt 60  
 gacaaagcat caaaccaggt tctgcctagt gataagtttc accctagagt atgtatgtaa 120  
 cgtttagct tatccatcct ttcttgagc gcctccattt ccattgaaag ccaggctgga 180  
 gcaggaccct ttggagtag tgactcagtt gcttccaaag cccctgctat tgtatgcagc 240  
 gctgacctgt actcttcttc ccaggggaac tctgacgag ctcttttgc ataaggctgt 300  
 aaagatgacc tctttgcttc ttctacagtc acattagcaa agggttccca gaaaatacct 360  
 ttttctgtt tcacacgttc cactttggca agcttcagtt tcactacaa acccagcttt 420  
 ntccagaang ggtccacttt ggtccttaag ttttttana acttgggaca cnttgggaac 480  
 cttttcttta agaanttggg cccntaaggg aatctgn 518

<210> 8319

<211> 513

<212> DNA

<213> Homo sapiens

<400> 8319

aaatttaaaa agatgtcctc actgcacaag tgactacggg ctacaggcaa ggatgggaga 60  
 cggaggcttc aacacaactc attgcactta gaaccgttac taaccgaaac accatttgct 120  
 tgtcaacaat gtacccttga cagcaggag aaacttcttt atagtctctg cttcagacaa 180

gatttacagc tttctccaag gccagaggcc aattgtgacc acaagtcttg tttcttgtcc 240  
 accagaccca atcctctggc acctgtgacc ccccgttcct cagcaatatg ctcggcctag 300  
 gttccagagg cagctggaag gaagcagcta tgggctcatt cagttctgtt tgcccaaadc 360  
 cagaagccct aggaaagtcc cgtctgagtc ttgactcctg gacccttcaa tggcttgaag 420  
 tccggtactt gggcacaacc ccaatttcac cggggtgggg aangctttga aattggaaac 480  
 cncnnatanc cctggaggcc ttggnaaaaa ntt 513

<210> 8320

<211> 508

<212> DNA

<213> Homo sapiens

<400> 8320

gttcagagta gctttatatt aatagccaaa tattggaagt gatccaaatg tccatcgaca 60  
 ggtgaatgga ttaaacaacac tgtacagatg tggtatatcc atacaatgga atgttattca 120  
 tcaataaaaa gaaaagaatt gacacacaca agacacaaga atctaataaaa taattatgct 180  
 gcgtgaaaga agacagacaa aagaagagca cgtactctat gattccattt atataaaact 240  
 taagaaaatg caaacgaatc tgcagggaca gaaagcagtt cagtggctgc cagagagagg 300  
 gttttctcag ggggaagagg cctaagaaaa cttttgtggg tgatggatat gatccccctg 360  
 ttgattgtgg tgacagtttc acagatgtaa acatatggca aaacttatca aattatccac 420  
 tttaaatatt aaccctgtgt tggatatcaa ttttacctta attnggnctn gttttaaaaa 480  
 aantttgnct cncaagctta aaaaaggn 508

<210> 8321

<211> 490

<212> DNA

<213> Homo sapiens

<400> 8321

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ccatatttca ttccatttt attacatgtt cacattattt cctgaaatca tcttagaacc 60
ttttgttttt gcaaaatttt agagggtccag gccctgtgat agctatgtga tgttttttcc 120
agcacataaa gcaaattcat gatgtgaaag aggcaaata ga caatagttaa agtatgtcct 180
atattgtaat aggatttttt taataaaaaa ttattgtgga acaaggtaca ttaaatttgg 240
cttgcaatta ggaaatatgg gagccggact tgaagagcgt gtgattgagt cccacatnt 300
aactgatgag gaaacaggct cagatgggtc tattgatggg tccacttgct agaagcaaaa 360
ctggaactag aaaccacgcc ctggcttcta ggcagcaagc aataagtttt tgctaaattt 420
ggtncccaac atttaaaacc aattcccca aatngggaaa gncaaanngg gttttaantg 480
gggntttttt 490

```

<210> 8322

<211> 399

<212> DNA

<213> Homo sapiens

<400> 8322

```

aatgaggcac ctgngggact ttattaggta aacagacccc agctccagcc acaggcttgg 60
accggccagc tgacagtgcg gcctcanaca ccccgccag gtccctcct ccctcctntn 120
tcagggtcac cagtgtgtga aanatcgggg catgccggcc acagggggaa gcagggttca 180
ggctgcccc cctgggtctg gccctggcag gcgccccctn acctggctnt gctgtgggag 240
ccgagaacaa agacatcacc tgcctggctc ctgctgcccc ggggggtcaa gccagcacc 300
accctnacag nggcctgggc aggggctggg gtgcaaagcc tacccttccc ctgtgagcca 360
gacngnaaat gcatttncca aaatgtntcg aggggcacn 399

```

<210> 8323

<211> 530

<212> DNA

<213> Homo sapiens



<400> 8323

```
gttgacacaa aatcttttta ttccccattt gccatctttt ccacaaacct ctcaggtaca 60
gatcggaaga aagtgcataa aaacctgcc ttatttaacc aggcccaccg cctccgggac 120
agcccctggg ggagcccat cccgctaggt agaagggaag gccacaccaa gtgctgagtg 180
agccaccag acagcaggtg ctctgggagg gaggggagc aaggggtagg ggaaggcttc 240
ctggaggagg gagaggcctg gccctgagag acagggggcg gtccctgaaa agggagagag 300
aaggcacact tctccgggaa ccaggcccca gcacctgagc attggacca ggcggccagg 360
aagaacacag gccaaggcgg gggcctgaac caaatgggga ctgtggaacn tcagggaaca 420
gccnnttttg gcttaaggct ngagtntaaa aggaccttct aagggcttct ggttgntgg 480
ttccaaagga ttccaanggg aaaccatgcc tncctaggnc ccaccgntgg 530
```

<210> 8324

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8324

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gttttttagtg tgattgcatt tattcttata aatgtacaga gctgtagaag tgcaagccaa 60
gagttctata gagtagtaca taaacacat atggtaccac tcctgctggg aggtaagcct 120
ggatacacc ctctcctcag gaaactgtca cctgcagaac acacagcact cagaattaag 180
gcagtttggc cctgggcaca ttggtggtat tttggtatgt ggccactggc cctaaacaac 240
tgaccatttc taccctgcct cactgcactg tcccaccagg tccctccagc tttttctaca 300
aggtaacacc ctctacatg gggtcagcca gctcagaaac ctcttcttca gggacagttg 360
cagctgaata tgccagagct gattattaca acaacgatgc agagggcctt ggttttgggg 420
cctgncacc tnaccctaga actggttaac acccaagcca ntctgcctga ccaccttccc 480
aacagaagat gtaggctatc ttaccttcac agcancttcc angacaaaac tngggccttt 540
acctgggtgn tggct 555
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<210> 8325

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8325

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aaaaagtga acttcaaata cagcggaggt ggcttctttc ctatgaggct ggctgatggg   60
tgccagatac caaggcccat gtgttactga ggagacagcc tgctgggctg gggtcaggag  120
ctagcggagg gaaacggtta gatctcagaa aaatctcatc actatgccct agtagcttaa  180
tgacatcact agcatgagca catggtgtac ttggcgggat cttacagctc tgttgcccat  240
ctcaagacct aagaacaatt attaagttta gccaaatctt gcatagacgt ggtagaatt  300
tattgcacat tggaacaaaa atatataatt tttgttgttt tggaaaagac cattagcaat  360
aaaaaatttt ttgtctgtct gtctggtttg gggatgtaca ttggctgaca gcatctaagt  420
tctaagaaga aagaaaaagt nttaaaaatn aaaattaacn tgacaatggc ataagccaga  480
agccatttcc tatttaataa gtaataattt ggattttcca aaaagnatgc ccattaaata  540
aaattttttt cnggtttat                                     559

```

<210> 8326

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8326

```

aaaagttaa ctttattttt ttttactaaa gttcagaaat ttctgtaaga caagtacatt   60
natgaaatgt ttcaaagaa atactgaaca atatatactc tagtttgctg aggttccagc  120
tcaagagttc aaacctaatt cttgtgcaat aaaaatcagc atggatctta gatgatctag  180
aatacactgt gttttgaaat ccacagctgg tttcattttt aaccattatg aaaaaccagt  240
actcctattc catcaaagt gttttataag caataataaa ttcagatcca ctgtattatg  300
caacatacat ctttggaag caacataaac agtgagatca gatcagtaga aatatacaca  360
gttaaaagaa atacacaaag tactgtagtt tttattaaan actactactt gagaaagaaa  420

```

tctttccaca aaatngcata aaactgttga atgatgaaag ggtttgggaa agcttttcca 480  
 aaagcttaat tncaatggat cttnctgang gttggggnc aanggnaattt ccttcctctc 540  
 tggganattc ctggctccct ccacgaa 567

<210> 8327

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8327

aaaatatttc aaagtgtagt acacatttat tttcatttgt tattttcttt catagcagat 60  
 tacagagaaa gaaagaaacc tctggtttca tgttctccct ggaaatatta gcattgatac 120  
 ccattttatc ctccaactta tgggggaagg gaaagtaaaa gtgaggaggagg gaagagccag 180  
 aacctttggg tgagggaac tttgggtcag actgccaggc tacagagtta agggagagctg 240  
 gccccagaac agtcctgttg cgattctgtt ctacttcctg cattccagca gacttgacac 300  
 tgggctccca gacgatccag gacacaatgc ctcactgtta tgcacacgta tcagctgctc 360  
 tggtaggctt gacaagggtt tgctttaaat gaagggtttg ctaatttggg acccttcctt 420  
 catatagttg ggcctgtgcc cccagagca gacatttctt ggcctgnata cctgacacag 480  
 cttgngagtt cctgcatgtc cccagcntta ccaatggatc cgtaaagggg agacttcact 540  
 tggcccagct taaaacagg 559

<210> 8328

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8328

gtccatgagg cattttattt gtaaataatnt gtattacatc cctagaaaaa gaatcccagg 60  
 atttttcctc ctgtgtgttt tcgtcttgct tcttcatggc ccatgatgcc agctgaggtt 120

gtcagtncaa tgaaactatg gagtggaaaa agaaagtgtt ggtaagttta atagttcaac 180  
 atagtgcctt ntagtgcana aaaacatcaa cactcatcag tggtaaggg cgctttcctg 240  
 tggggcacat aggaactgac agtgcctaca tgancgtgtg cctcatgtag cgtatgagcc 300  
 atgactcctg caacccaaag agccaaatnc agagagccca gccacacant cacacaagcc 360  
 ctgacttctg cctacaccat gaaacaaact gcactgaaaa caaaaggctt gggaactnct 420  
 ttaaattcaa aatgttnactt ttctgctttc aggttaaggag actttgaaag tatttcgnat 480  
 aaaacttggg gttttgnaat tngggtttct nccntgtacc tgnattaata 530

<210> 8329

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8329

atagagagat ttaagtttat tgaaatgtgt tagaaacagg ggaagtatct acaagcagaa 60  
 tcgtaaagcc aaggacattt ccaaattaat agaaaggaag gaaacagaac agaaacttga 120  
 cccatccaaa taaagcaggg gagaagttaa aaaaggaaac aaaaggaaca atacacatag 180  
 tataagaaaa aatgtctatt atttattaca caataattct gaccaccaac aaccaacggc 240  
 gggggcgggc aggagagaag aacatcttgc ttctcaacaa actttcctcc ctgtctttaa 300  
 catttttgag gattctttcc caaacctatt acacctgtat tatgatggtt acaaattttc 360  
 caactcttcc actccttcca gtgcattatt tttagtatct tcattaaacg ggcaaaaaaa 420  
 aagatcccct acttgtaata acaaaacaat gttggaactg tcattaaatc aggatagtgg 480  
 aaaacagatc tgttcccaga ctgtcaggac ttttaggtta ggaagtcccc naaaaaatta 540  
 aaatt 545

<210> 8330

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8330

gttttcaata cactcatata tttttacttt gtaatacaat atagctgtca catacaatgg 60  
 ctctagtagg cttaaatcaa attgcaatgg gcaaggaaag ccaaagaagg gtttacacaa 120  
 tattcaataa gcaacagtat ctgttcagtg tgcaataaaa taaaaaagtt ctaacctaga 180  
 aacacagaaa aagaatttat tgtttttaag tttcagaaat aaaagtaaca gaatagtgtg 240  
 taatctgtaa caagctgggc ctgtaatttc taaactacag tccaattaaa acatttaagt 300  
 aatagaaaca atctacatgt ttttctacca ggtaaatata cctgagaggg ttacctataa 360  
 agaaataggc tttaaaactt ttaaccacaa agaaccttct gctgcgacat tatgaagatg 420  
 ggctatgcat gtngncagac tnagtcantt tcccggagat tctgctcact gnttaactgc 480  
 aggtagtggg ccatcaatgg ncagagtntt taccatcaat accagttcat tcaaccaaag 540  
 an 542

<210> 8331

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8331

actgnatc ctttattaaa ttttgcctta aaaattttta atgctgcatt tttataattc 60  
 acaatagcaa caaaacatga caattatttg tgtgaaatac agtctaagct ctaaagggtc 120  
 atagattaca ttcatTTTTat accaggtttg ttcatatata tagattaatt catcacagta 180  
 tacttatttc ttaatatact tgcattttat caagtaaaag aattaaatat taaaagtagc 240  
 ttgacaaaat acagaaatat tctgtgcaat aaatttggtg tcaactgatt catgactggg 300  
 tcatgaatca tgactgatgt aatcttttta tctttctgcc cagcttctct tacatgatcc 360  
 ttgggaaata gccagttgaa aagaaatatg gcaagggtatt ctagaatggc cactaaccat 420  
 agagtctttc aagatgtgca ngttgctttt tggattcttc ctgnaggnga tctggctctt 480  
 ctagaataca gggatatctn ggattaaaaa agtccgantt tccatcatgaa ng 532

<210> 8332

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8332

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ggatacataa tctttcactg tatttgaggc tatcttgagt ctctggttga gatctgggtc   60
actaaggctt ctgggggatc atgtcttcaa caagccttcc aatgaatgtc caaagaaaaa  120
catataatTT ccttttattt ttttttttac caaagttctt atgaattgga aaataatttg  180
tttcaaagac ggtgatgaaa ggaaaaaaaa agtttaactt tccaaaggta atgctttcat  240
gaagagttag aaatagcagt tttagtaatt agttgtagga attctggtta agacttcaac  300
atTTtacctt acttaaaaga tttgctttat gcaacattta atgccagtt ttgcatggct  360
ctaaaaatct ttaaaatgca aaagcttttn cagtgactgg aagccaacac gacaagaatg  420
aaatgggntg accngngaat taaccngggt tataaaaaaa tcccgttcag agacccttta  480
cccaattaag gaacttagcc attccttaa tgggnntaac ccttgggcaa                530

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<210> 8333

<211> 348

<212> DNA

<213> Homo sapiens

<400> 8333

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aacatcacat aagtttattt cagatgtaac agcaatgtta aaattgacaa gtttaattct   60
taactgcacc aagtaaactt agccatttaa gtatTTTTTT aagttattcc ctccaaaaaa  120
ctgaggggagc ttttcttttc caccaccgca ccatggtttc ccaatagttc tctttttgga  180
ggacttttca attgatgagt aaactgcttt agatatttca gaacttcatt ccccaaata  240
aagctaattct ggacaaacta tatattgcat agatttctct acagattctt tgnTTTaaaa  300
cctaaatgcn actnaccata ggtggaaatt taggcnantt ngcccanc                348

```

<210> 8334

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8334

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cacaaagaat cattttatag attttttttc ctgigtggat tctctgatgt tcttaccacc 60
cctattactt ttataggatt tatcaccaac atggattctg tgatgaactg taagatttga 120
tcgccaactg aagctcttac cacatatctc acatttataa ggtttctccc cagtgtgaac 180
tcgctgatga gactgtagtt gtgaagaccg actgaagact ttaccacaca catcacattt 240
gtatggtttc tctcctgtgt ggacactctg atgaagtga agacttgagg cctgactgaa 300
gtacttacca cactccccac atttatatgg tttttctcct gtgtgcaccc tctgatgcat 360
gtcaaggttc aagctccact tgaagccctt cccacactca tcacatttgt atggcttata 420
tccagtgtgg actttttgat gggcttgaag atgtgcactt ccgaccgaa actctttccc 480
acattcttca catttgaatg ggttttcttc actggnngac ttctctgatg ggcccaaaaa 540
attgaggcc 550
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<210> 8335

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8335

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atatgaatac tttggcttcc attattacat tagatgaaaa aatcaattca aataagagtt 180
gtcatatcct gctatgatta acaaaaaaac aagtagaaaa ataagagagt gtatttaaaa 240
aaaataatca aatgcttttt gaaagacctg ttctcttcac tgccacacat attcatacaa 300
atgacttagt aatctaatat gagaagtggc ccttcactta tattaggaac ttggtaaata 360
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tttgttgaat gaatgaacta tctatggata tgaatttact actttaattt gtgctttttt 420  
 tgaaaaaaag ttttcaagta agagcaatag taaacatact gaagttcaca tttgctcaga 480  
 tcataagcct atagaacagt gatttggtaca aacaccaccc atcatagcnc aaatcaatgn 540  
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<210> 8336

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8336

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 tagactttta catcaccag gcctctggtt tccaaagcat ttttttctt taatgcagta 180  
 aaaccattcc tttaaaaccc aaaatctctc atggaacccc tacgtatcaa atatataaag 240  
 caggagctgc ccttggttcag ggataatatg tggggcttat ggctctaaga aacacagttt 300  
 gacattcact gctctcctta cttcagttac ctcatggtat agataaatgg gctgggcccc 360  
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 ttccacagca ccacactgga ttctggagtc tttccagcca gggcagagga agctgcacag 480  
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 cat 543

<210> 8337

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8337

aaaatcaatc agaaatttat ttttcttatg taagtacaaa acacctcttt tcatcagtgg 60



accccactcc taggcaacct ggccatgggtg cccggatgca ggcagtattc aagagtttct 120  
 tccaaagtca ccagggtgaa aagccattct actacaacct ctacatgacc ttttaaagtg 180  
 tacaacttat aggacagtcc tttctggagt actgtggagg gtgaatcaaa gcttccagtg 240  
 taagtttatt gtctggcgaa aacaccagag ccaaaaattc caccaaggcc ctggaaagac 300  
 tgaagtcccc tctgtctcat acagtaatca tccatgagat ctcccggagc ctgggtgac 360  
 attacgcca tgatactga ggcagcgtgg actctgccag gggtcctca gacccaaagt 420  
 ggagctcact ttggagaagt cggagcttat ggccgttagc acctaaggat gtggctgaaa 480  
 ngcccagaac aagaaagggc tttagagacc nngcncangg tnantttaa acttgggccc 540

<210> 8338

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8338

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 aacagcgaca gtgatgactc caaaaaaat gtttagaatt agaagtgcatt gttaatctga 120  
 gtaacttaag tacagaaaag agttagtaca ccacaagcat tttctacact tttatattgt 180  
 ggtgattgtg agacaaacac agtccaaaca atagacttct tgtcctcccc ctccaacaa 240  
 ctatctgact ccatagctca tgcaccccaa ttacagcagg tgtcgggctg gcataaaggc 300  
 ttcttaccag gattccagtt tctccttctc aatccttttc tcatctctaa caaaaatgcc 360  
 acacatacat gtagttgtga gaggcaaagt cttctttaca ctcaccacca gggggcgtat 420  
 gggagcacia aagcctnaca aaactgnttc aggatcctgc cttttcaagg cccggaatcc 480  
 gggggcttcc angaattcta acctgggctt ggaaagggca ttacaaataa actngcnc 538

<210> 8339

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8339

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cttcttggct ggttctttgt tctgtccccc atgctctgat gcagtgccct cttcattttc 60
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tgaggtgctg agcttcatgt gctgcatcag gttcaccttg gacttcttag aaaggtggat 180
gagaaatfff tcatactggt ctatggcaaa gatgagggtta gggattggct tggtttcccg 240
aagaactctg gccatggctg tggcaacggc agcaggtttc tcctttttct ctcccgtata 300
gttcaggctc ttactcttat tctgtacgta agaaatgaaa gaataacaca gggggggtcag 360
atgagaacca gacagcttca ccagcttttc catatfffft ggaattcctc cggagctctg 420
acacacctgg agataatata tgacaagggc tgtaaagtgt ggtgtcattt tgcacaagtc 480
ctttacaagg tgtcacacag ctgctgatgc aaaactgctg gancanctcg tggnaaaatg 540
taagct 546

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<210> 8340

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8340

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aagatctgtg cgtttttattt ttgtaaacta tatctaaaac atacctcaat ataaaaaacc 60
agaaacaaaa taacaaaaac ggggtgagaa caaaaaatac agatgacagg ttctgtagtt 120
atggtactga actgagcttc ctgtcagcca aaactagaag ggaaacatga ccaccacctg 180
acttgttgca gaggcttttag atctgagcac ttggatctga aaacagtttc tcttttagatg 240
ccttcaaata agggacagta tccttgatga caatacagta cataattca caattctcca 300
agaccatctc tgtgtatata aagggttaacc tggatgaata tttctgcagc aggcattgggg 360
taggcaggca atatgaccaa atatgtagtt tggaggctca aatgaaacag gagaaagagc 420
tcaggaacca tgaagcatgg tgcangtata anggtcaagt attctaacc taagatcang 480
gtgcatgaga actggagang cctcaatctg agacttanac caaagggtgtg gaatnacttn 540
cta 543

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<210> 8341

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8341

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cagagcacia gttttgttta attgatttta catcacacca gaaagcatta caggacact   60
ggcgaataga agtaagctgg aacctcatca cagagctcct ttcttaccct cagcaacaaa  120
aaggcttgat cttagaagtt caaaattggt ccatatggta aagacacatt cactgcctgg  180
tcaggccttc tgtgatctgg gcctaccctg ttgatccact gtatttccag ctgtttttca  240
ataagcacca tccacacgag tcagtattat tttcaaaagg cttctatact tgcgatttcc  300
tttctgcat ttctgaattt gtcattgtgc ttatcttgct cagaatttcc ttcatcttca  360
aaagtatggg tgtggtacag attttcgggc agcagcatgt aacactttat aggtaggttt  420
tccaattgta ttggtcacag taggcagagt aaattcaata gttttttggc ttaaggnaac  480
aactttcgaa tgccctgaaa ggagtgattc agtaaangaa nggggatgnc nttaaaaaac  540
ttggaccnac c                                     551
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<210> 8342

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8342

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gttgctgtgc tatttgaatg catgacagtt tatgtagcta tccttctgtt catggacccc   60
tgagctgttt ctgtggggct attataaatg tgctataaat attcttgtag agggattttt  120
gtggacatgt tttcatttct cttggattaa aaagctagga gtagaattgc taggttttat  180
ggtagctgta tatttaactt ttaagaaac tgcccaacag ttttctaaaa ccattgtgct  240
gttttgtgtt cctgccagca cattgtactc tggttgtttt ttacatcctt gccgacaatt  300
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ggattgtcc acctgttgca ttttagccat gcttctggat atgtggcggg atctcatggt 360  
 ggtttagttt gcatttccct gatgactaat ggacagtact tttcatgtcc ttttttcctt 420  
 ttaattggat aggactcctt tgtgcattct ggacataaag gattgtcaga tttatggggc 480  
 acatatcttt tncactcta taacttgcct gttcttanna gtatctggtg atganaaaaa 540  
 gggttanntt tt 552

<210> 8343

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8343

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 nggttctttg ttcttgggtct ggacttgcct caaagtcatt cggttacatt cacagctggg 120  
 tcttggctgg gatgactgga ctctgcttca tgtatttctc acatcttttc agtacattat 180  
 cccaggcatg ttctcattgc agaggagcta tcccagtcac acaagagttt ttcacgcttc 240  
 tgtatgtgtc aaatctgcta aaacaacatt ggggagagca agtattatgg ctgaattcag 300  
 aatcaagaga tggagacagg aacttgccta gtagtgaggg agacccaaag tcatgtggca 360  
 aagaatatga cacaagggtg gatgaaagat tcattaatgg nctcagtgc tctactagag 420  
 caggcaaggg tgtctaaccn gaatttagta gaatggcttt tgggtggattt tttaaacttt 480  
 cttttgggcc cagtgattaa aggtttcaat gaccggggna aaccaaagtt ttttttaaaa 540  
 a 541

<210> 8344

<211> 496

<212> DNA

<213> Homo sapiens

<400> 8344

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 gatttgggtt tanatatagt ttgggcttaa gtatccttta tctcagatta aatgagacag 120  
 tgcattgtaa ccacttagaa naatgcctgg aacacattaa ctttcattac taatgttttt 180  
 ggtcattctt aaacattttc acttctgcca ccacccttta tgcagtctgg cacatagctg 240  
 tcactcagca aatgtgagca aacaaacnct agagacttta gtctgccagg tctntaacat 300  
 gcaaagccat ggggccaggc ccatacactc cctccactga gaaaaagacn aatggccttag 360  
 gctacaaggt ttgggtcacc aaggaaagct gtcaaataat gaagtgggta agcagattcc 420  
 taaaaattgg aacnntttca gcagcagttt cattcncang gagacngagt aatgccctnt 480  
 tnaantggc tcacat 496

<210> 8345

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8345

caagctccca tctagttggt ttaatcaaga acaggctcgc taatccgtag aaacaacaat 60  
 gcttgcaata caaagtagac ctcttaaacc aactcaatct atagaagagt tgggcatcag 120  
 tgagtatttc cagccataac aacatttatt agttctctgg taaacatttt aacatttctg 180  
 aagaaacagc aaagtgggca tgtatcttta atgtggagca ctggggacat atctggagac 240  
 ctacaactct gaggaacaga gacaagtgat ttgggggata ttctcgatta acaagccaaa 300  
 gaatcaggaa aatgggctgg aagcgggtag ccacacacct ctctccctgt gtggggcctc 360  
 taatatgtga ctgatgcctt ccttttctgt gcctttgaaa tctcatgcaa gattggctat 420  
 aggtgaattg tattacgaaa ccatccaagt tcttctagat tttattggcc tatcgcaagn 480  
 ctctcttntt aattcaaaaa gcngtnttc ngaaggctct tnaccctct ttttnttgg 540  
 ggtttaaaag gaagg 555

<210> 8346

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8346

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atgttctgac tgaagccttg ngcataaaac gaccggctgg aatatttact aaattctacc 60
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ttggcatggg gtttgggtgag agaacaaatg ttggctttac tataaaaaag gntgtgtgat 180
ggtaatttaa atttttaaag cttcttgaga gagtaattac nttagtgaag ttaaaatcag 240
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agagttaatt tgntctgaaa caattatact ctttttggaa gcctattgca atttaagaag 360
aaaaaagaaa acttgcctaa caaaatatcc catnccaaac atatctagta aattcaattc 420
tttcacactt aaaactttat gggaaaagtn ttgcaaataa nggcatatca tttcaatgga 480
cttttatttg ccgnaaaaaa ccnncctttt attttagngg ggaan 525

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<210> 8347

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8347

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gccaatcaca aaaaacagac ttatttgaag tatttagcac taaacccac acaattccag 60
ctctgtagct gaggacacag ccacttggca atggcaccag gtgttataca agaccaataa 120
gttaatgtaa aggacgctta ggtgtggagg gccagtgtc agccgtctcc tggctcagaa 180
caaggcactc tgggctccag ttaggacact gagaggccag ggaaaccaac atgccctgga 240
gaaaggggct tagagacaaa ccggaaaagc acagcatcca agcagggtat tcacgcatgg 300
ggggcagagt aggcccaaaa gttgggggtt gctgatgcgg taagagcaca gtgagagaaa 360
tgccagggtgc atcccttcag cctcctgcat cctccccag gtcccttga tgggccatcc 420
tgggtcttcc ttgnaccct tgtgcaatcg ggtcatcgtt ttcttttcag tnganaaaac 480
tgggcctttt ntanggcaaa cccccaaatt tttggaacct tttggnnttt tcaaagntgg 540

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tcc

543

<210> 8348

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8348

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agcttaaaga catgaaaaac ccagtgagtt tttattgaat agtctctctt gtgttaaaag   60
tacatattca ggactatact atgttgattt tggaaatatt ctgatgtgtt taatacaaat  120
tcgtagtgta ttcagagcat tgtatgtgtc tcaccaatgg tacacatttg gattaagcag  180
taataaggcc tataaaagaa gaaatgaaac aatagttttc aacaataaat gcaggaagaa  240
aaactgctga tggaccaaac tgagaaaatg tcctttttaca ctatcccttg gtggtcagtc  300
tccctgaatc tgggtgtgctt ataattgctg ggaaggcagt gtaaacctgt ggccatttct  360
atgcatgtct gggaggacca cagccctggg gtggagcact gacaggtttg actttccacc  420
agaattgctt gctcagctta atcccataat attcctttcc cttagatttg gtttctgnct  480
cggtaacttt ttctctctgc atataaaatt tcatggctta aatactttta agtcngagat  540
tggnttt                                     547
    
```

<210> 8349

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8349

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cattttgaaa aagctattta ctttttttcc aaatattatc ccaaataagg gttttacaga   60
taagggtcaa tacgaagtca aacattctac agaagaaaat cgtttttaca gacattaaga  120
ataattttaa cagaagaaaa agctcacatc tatctagatg tggctatgtt ccatgggaaa  180
aatttcagca tccaaagtgc aaagaaaaaa tgactgtagc ttttcttacc acaaaatatt  240
    
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gacaatcttc ccttatagcc tactctttat tgtagttgg gatgccaaag gatgatatat 300  
 tgacctttag aagtigggct ccactggaca aggttggggg tatgggggcc aagcatcaga 360  
 atgaattcaa ttttaaaaga aaaactggct ttgaccccaa atgaacccaa agttcagcca 420  
 gcggcacatc agagataaat acgagttgta ctttcacatt tacaagggtg tgccctcaac 480  
 actattaaag acctaatacat tcaaatcaaa gctcccatct tccattacta ggtcttgncc 540  
 caaagggatn c 551

<210> 8350

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8350

ggggctatat ttacaaatit tattttttta tcccaaaaat acatataaat gaaaacctgc 60  
 tcttcaaag caggagggcc ttgcctaac attgtcatat gaaaatcagt atcagctctt 120  
 taacacacaa tttacatata tacatacata cacactatat gtaagcagca aatacittgc 180  
 tacttacaca tattcctctg gtggaaaact aggacactgg gaaattcccc tgctttccaa 240  
 ccttggaag gtaaatacaa cctctctcaa caacttttta aaggatgaaa tgtgtagaaa 300  
 catgtaaaca acacaacctg ctttagatct atacatgtta ttagaataaa gaaagaacgc 360  
 tgtcacatca gtgacagttt atttctcaaa gaaaaaaga gataacattt gaataaaaat 420  
 gcaaaaactga agtacagtta atatgatcaa aattgttgtg tcatgctcca tggagaaatc 480  
 angaattctt tnccaagnac agattcccaa gncnatttca ancactttgg angctgaatt 540  
 a 541

<210> 8351

<211> 564

<212> DNA

<213> Homo sapiens



<400> 8351

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gatgcacaaa ggttttaata ccttggcttt aatgattttt caaggttaag aaacaaattc   60
aaattggttg gagcttcaac tcagtaatta caatcacaat gcatctctga aaggccctgc  120
atttgagggc agagtaatct gcaaagatga tagtttttac atatgtcctg ttacctacac  180
caatataatt actacattat cttataaaga caaacagttg cttcaaactc tttaaaaaat  240
atatatataa tgagtttccc aaagactcga gtctatattc aaagatgagt aaaaaaaaaat  300
ccattacttc cctagggcca ctttcttcct ttactcctgc ttaaatacaa aagctgatag  360
tttctgattt gtagaaaaat ctaaaggttt ctgcttttta gacaaattca ggttcttttt  420
tgctttttct tcttggtttt ctgtttcatc actttcatca accacacgtt ttcgcttctt  480
tgcttcagtt ccttcacttg gccggttctc ctttggcttt ggtagcccac accctttctt  540
tctttaagtg acaataacct tnaa                                           564

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<210> 8352

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8352

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cagagctaaa cacagtaatc atttattaat tcttgagaac cattatgaat catataatag   60
tttaaaagag attcaggatt accactttca aatatatcca ctgacgcttc caaagtagtt  120
taatgaatga ataaacctat ttgtttgtat ataaatggta tacttggaag agctcaaaac  180
ttttgtatta cttatatgtg cacatacatt agacacttcc ctatcatcat ttttactccc  240
ttttttctta gcaagccctt tctttccaag taaacttcag tcagactccc tctggctgcc  300
cacaaatcct caatcactgt tggccatga aggtttactg cgttcattta ggtgctcact  360
cctccctgag gctcattccc tcttaaaact tctgagcacc ccggaattac tggcccatg  420
tctctctctc tcttttacca agacagctgc tgaggctgct gctatgcagg tctacctgcc  480
cctntctggg cctctgcttg ctttacacca atgnccctan cccaggtggc agtatctggg  540
ccccccatt tt                                                         552

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<210> 8353

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8353

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ctttaaacct ttttttattt agagattttt ctggttaagga gatataccat aggaaagcaa 60
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taactttatt tacatacgaa gcaaagaatc aatgcatatc cttggttcaa ctatagtatt 180
agccatacta catgaaataa aatggtgctt gcatacaaaa acttggttgtt tgtaaaggaa 240
tctgatttca gattaaaata cctaattgtt ttggaaaaaa atttttaaaa agaatacaca 300
tttatcatga ccaagacacc tgcaccatat ttccattcc tcacagcaca tttatttcag 360
taatcctgtt atgtcgggtc ttagcatgag catagtgtta cacgattttc gtacatataa 420
tcacatccaa aacaagctct aaaatttaaa ttgnaaacat tctcatatgt agaaatattt 480
taatngggna ttaaggtttg ctaactggtc aaatttggaa gatatttaat gngacgttat 540
ctnaactggg naggg 555

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<210> 8354

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8354

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caaagagtga aatttattta ttggaattc agaaattcca ggttgtatga catcagttac 60
tcaataagtg tgaattctcc aactcttctt ttaatcccat tttagaattt aatatagaga 120
tctctgattg gcaggaacac tagaaataaa tgttccatgg ccagtagtgc aaatggggga 180
ttgtaggttt tgaaaaacca ccctaagcca tattaagggg gttggaagaa ccatcgaagc 240
ctaaggcata gaagaaaatt tggggttaag aaagatgaag aacaaaaaac agctttattg 300
cttatacatg accaagaaaa ggaaaacatg gcaaaaaaaa aaaaaaaaaa aaggcaagat 360

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gtgtattcct tgcaaaagaa caagcctgct aacttgggag gaagggaagg tcaggaccca 420  
aatagagcca atttcctgga natggcctgt tctactggca cattttcctg agctgggctt 480  
aaaactttca gggccttttag ggcccaaac catgctgcta aaaatntttg gccaaagtct 540  
ttcacaaaaa at 552

<210> 8355

<211> 244

<212> DNA

<213> Homo sapiens

<400> 8355

aaatttgact cattcaaate ttggcaatta gcatgtatag tatgttatga gagagagaga 60  
gagaaaatta gcagaaatgg aggaaaacat attacatcct aaataccacc aaattgccaa 120  
aatacacatt tgggtagtaa tctccagaga actctctgga ggcacagcat ctatcatgct 180  
gatttcctg aacaatatta cagaatagcc ctgtgtactt tctttggggg ggggaggnnn 240  
nnnn 244

<210> 8356

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8356

aaacaggaac ttaggttaat ttaatagaaa aaataaaata tggaataaca ttgattttgg 60  
ccagtatcag ttacaaccgt tctactatat tttaaaaaa aacaactgaa cattttacac 120  
ttgtacagta tttttcagta aaagnggatt tggatttaac aatgggtcac taattgaaaa 180  
taaaaagaca aaagaaaaca gaaataggac ttttgtctnt agaaggtag agcatttggt 240  
gagtctccaa actttgnact atccattaca tatatctcat tatgaatata tatatttatn 300  
cntaatatat aacattaact taaactttga aagcattatg ttctagttaa taatgttatg 360

tagataaatg aggcagtaac acactagtag ttaaaccagt atttccgnga cgtgcacctg 420  
 catggtcagt gggaaatgga atgcacgctg gtagacccca gtgaaatttg gtggcatggt 480  
 gatgggtant ccgntccaaa accggcctna ttttancitt ctatnaatcn cggna 535

<210> 8357

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8357

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 cagcctccgc ctcttggttc aagcaattct cctgtgtcag cctcctgagt agctgggatt 120  
 acaggcacat gccacaatgt ctggttaatt tttgtatttt ttgtagagac agggtttcac 180  
 catgttggcc aggctgggtct tgaactcctg tccctgcccgc cctcggcctc ccaaagtgcc 240  
 gggattacgg gtgtgagtca ctgcaccag cctaagttgc tcttttgaat cacctaattg 300  
 cttgtagagg agcaatggan gggcacacaa gaggggtaaa gcacagagaa catttcagaa 360  
 aatgcaggaa cctttctttt gaggcacaac ttttgnaca gggcaacccc acccaaggag 420  
 aaaccagtca gaggccccaa ctngaagctg aatgaaggac gatccctntn cctggcctgg 480  
 ggagcctggg gtcaccttgc agacaagatg gtccaggaat ttactntga ctnttggttg 540  
 aatgagcctn ttttacgggg ggg 563

<210> 8358

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8358

caagtgtagt cacagtttat ttctgatgtg gctgaatcta gggacaggcg ggctgggctg 60  
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cctgcatgga caccatgctg ttgctgcca acaccgtgat gccagcgcc tggatgccggg 180  
 cgtgcgtctc tgcgtaccac gtatgcatgg ccaccgagtc gaaagtgggg atcagggtca 240  
 cctgcaggtc acggtcceaa tgctgcttgc tggccagtag cgcgtccagg acggcccgcga 300  
 tgccttcctc cttgcgctgg tcctggccac tgatgacgta gcagagcgcg cgcacgcgct 360  
 ggaagaactc ctcattccacc aggtgggccc tgctcccgtt gggcaggtag gccagggtcca 420  
 ggtagaccgg ggacttgggt ggggtggctg aaccccggcc cggctgntgg cttacccccg 480  
 acggcctnga atggcaatct tgggggggta ngactttntg gaaagggtgc ccggcttcct 540  
 tttantgggt tanttcng 558

<210> 8359

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8359

agggaaaagt atatttacta gacttccata atccatactt actttaaatt caatctagaa 60  
 ataacatgac tcatattagg caatatactt tgaagatctg tacaacatag taatcacagc 120  
 agggctcttg taactcacia atttagcata catgctgcaa aaacatctct cctggagtcc 180  
 caagggtctt caaatgttcc accaggggca gtcaagacta gattcacggt gctctcttca 240  
 tcatgcgcac aaaatgtgtt ttcccataac accatattat cacaagtcta tgaacaattc 300  
 tggtagcta aggtaggcag tatagaactc ttacaaata acagtatttc aattatgcc 360  
 tgtaagtaaa caatttgctg tgaactgtcc tgtgtatcta atcatttaac acattgcttc 420  
 tataagaaaa tactatttgn taaatttttag tcataatttc attggttctc atcatagact 480  
 gcagatgcc 540  
 acattaatgg ngaaccaa at ggtaaatctc aattttcttt gacattttat 540  
 gctttggaaa ttcanaan 558

<210> 8360

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8360

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ggaaattctt tacangaaat tttatttgag atctcaagnc cttataaaaa gtgcattaca 60
tcaagattgc aaaagacact ttttaaata gagacttcta tctactcatc cattttaccc 120
tatgattcat ttcctaccct aacagaaatg atgaaacagt tttctttct tccttttctt 180
cctcctgctt tgaaagggca actgtcatga gggataatctt aacagaatgt gccaatat 240
ccttgccagg agagcagtag cttcctactg gctaaattta gagagccctt ggcatcctt 300
ttggtgtggc tcaaagatta ttacaagctg aatctaaaag attgcaacct actacttgca 360
atctgtctcc ctgggctcct cttttactna caaactccac tctaaaacaa ctttaaattt 420
taagcactca ataattgctt tagaaatgaa gggatctaaa ggtaattacc ttacccttgc 480
aactattttc tgnataagaa tcttcaaagg tnataaaaat tntccgatg aagaatggcc 540
taatcctaaa anggggtgga t 561

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<210> 8361

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8361

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agttagaacc agaactttat tgtagcggat acactttctg acctatcatg agtatacaca 60
tctgcgaagg gaaaccgcgc ggcgacagcg tgaggacatc ccctgggcgt gagcgtctgt 120
ccgctgtcta aacagagcag ctacagggac gggacatgga ggatggccac acatagcaca 180
gccaccagtg tcctcagaac tagcagtcag ggtcacagaa cagtattcaa aatgattgcc 240
cacctgtttt agaaatctaa aattttacat gtaactaaga gcaaagtgt atgtgggttt 300
tagaccatga ctgtttgttt gctctcctgc cctaccacca agcaaagcag cagggtcct 360
gggggagagg gatttcaacc cccctgatgg cagggggtgc tctggggagg agagaggaga 420
gaacaggctg ttttgggaaa attccagcac tttgacttcg ggccatgcgt cttntnctgg 480
acgttctgag tacggatcgn taaggcctct ggccgtttcc aaaaggagt gcaaccggct 540

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tgagggaacc tnttaa

556

<210> 8362

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8362

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gtgattttga catttattaa aaagtatttg tcatcagtaa ccattttgga tacttgcaaa 60
tattacagta aaactctgcc ttaattcaca gggcaggagt agaaaatcaa ttatgtaaaa 120
tacagtgttc cttttttgca acattaacca gaaacattgt ttatcagttt gtactgatat 180
ttaaagtgca cacatgggta catatacaca cacacaaagc taaacttcag cagatgggtat 240
aatgtataga gaccaaactg taagaaatgc agcacatctc tgctcaagat ggaacaaagg 300
gtgggaacta accccaatag gggtacaatc aaattaatgt tatttcagat catcataatg 360
cttattgttc tacatttcaa atatttactt gaaatgattt tattaagatt acttgcagga 420
tttctccttc aaatcatttt aaggttttaa aaatgcctta aaaatttcaa acctttanct 480
ttacatcttt aggtanttag caaaagtnc tngcccctac atgggttgn aagnnccaat 540
ttggaga 547

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<210> 8363

<211> 462

<212> DNA

<213> Homo sapiens

<400> 8363

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cccaaattac caagaacctt tatttaacct accaaactaa aagagcaata aaataaaaaat 60
attttccatc cacaaaacgg ttttacatca actacactga ccaatacaga gaaaagggaa 120
atccctgagg aactgccaac aataaataat atacttaaaa tagaatgttc tgagtgtaaa 180
ggaacatttc ctgagcccgt tcagtttggg gaaatttggc cctttgcaaa attcagtttc 240

```

tcaaaaggat atccaactga tgcaagtttc ctgtcatgac aagaagctgt catgttcagt 300  
 agcaccttac acgaaagggtg gggaaatagg ccgggcgcag tggctcacgc ctgtaatccc 360  
 agcactttgg gaggccgagg caggtggatc acctgaggtc aggagtttga gaccagcctg 420  
 ccaacatggn aaaaccctgn tntntnctaa aaatncnaaa aa 462

<210> 8364

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8364

agaacaaaat ggttttaatc aattgcgtca ccctcactct cctgggagcg gagcaacaaa 60  
 aaggctcggc tcctgcccc agaggacagt aaggcttatg tgtctctcca cactgcaggg 120  
 cccaggctgg gcaggcaggg ggtgggaagc aggacagggg gcagggaggg aggggtgggag 180  
 gcagggagga aatggcaggt ggctggaaca caagaaagca aaggggaccc agctggtcct 240  
 tgggccccag ggcccagccc caatactcct gctctccctt ctccctggct agagaaaggt 300  
 cacggagaag agacagggga gcaggtccca gcagcaggag aagcagcagc agctgtttcc 360  
 ttcaccaata aatatacttc attaccaagc tagaagagag ggggtgggaag agggactggg 420  
 gtgggaagga agggggagaa actgccacct gtgttgctgg gattaaagca atgagatggt 480  
 gccaganccc ccaccactat nctaaccttc anttggttn ttnaaactgt gaaaaanctt 540  
 tttaaattgg cccccttt 558

<210> 8365

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8365

aagggtgaag aggagtttta tttagtgtta gaagagctca gaggagtggg tagctcctct 60



ctggagacag attgtcccat gagctcaatc attcagctct caacagagag gaggccctgg 120  
 agagagtggc tctctccgc aggcaagtca ttccaatgtc tctgcaggtc tctgaagctc 180  
 gcagcagagt gtagctcctc tctgctggca ggtggtctct gtagctttca gcggagaagg 240  
 tactcctctc tgtagctggg caccaccg tctccagcta tcagcagaga gggtagctgct 300  
 ctctgcagct ggatcctctg tcccctcgtc tctaccatct tcatcctctg gctattctct 360  
 gcgctgctct ggctgagcct agggttttta tggacctcag cggggaagaa gtgtgtgctg 420  
 attgggcat tggcaggccc anaaaaggct ccacgaagtt tncactctgg caaanggact 480  
 ggcanccac cccagaatt caaggccctc ctggcctgaa ggtgggggnt tactggggac 540  
 cccanccctt cttcctgttg cant 564

<210> 8366

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8366

cagacttta agtttttatt attttatatt acgcatgac ttgcatggaa tgaccacaaa 60  
 gtggcataac cttcctgggc atgtaactta actcatcagg cctggctaga aagtgagaac 120  
 tcccagatac acaatttagt ccaccagaaa catgggaggg agcaaaggaa agagaaagag 180  
 acagaggaag gcacaatgat aaataattat ctgcctcttc tctaataagg tagtggctcg 240  
 ttctaaaaat gatgataatg tcatgtaata caatctctga ttcattgtca aggtcttttt 300  
 gttaaaggaa aggaggtttc ttagaaggac tggatctaata caatacatat ttgatgttca 360  
 aatgtttgac tttcaaaca aattttttaca gccaaaataa aatgaaagaa atgatactga 420  
 caagctctct tgccatgcc ttgtcaaagc acccacagaa agaataagt caaaaggtag 480  
 aaaggccctt cccttcatcc aaggaaacat ntncatggga gtntgcagc cgacttcctt 540  
 tccntaccca accccacacc ttaggtca 568

<210> 8367

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8367

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gaaataacat tgtgacttaa aggatttcta ggtcctaaaa tctggaaaag ggatctggaa 60
aaatttggac tccatgagta gtttggattc aatctctctg tgcttttttt tttctttata 120
acaggaatgg gatgggggggt ggggggaata aaacttctta tgctatatag gtcattgtact 180
gtgagaaaca agaatacaaa actatgggtt taaaaacaac atatacagaa ataatcgcca 240
atctctgtct acctccacat cattntgtca tagaagttca ttgtgattaa aaagttttaa 300
agtttttaag agaaaaggta gattgagaag tagaaaggaa gtaggaagga aattgtgcaa 360
aaaaagaaac agtttattag atactctgac cctgggacac actgttcctt tccccaaaat 420
attttccgtg ataggaactg aatttaaaat taccaccttg gtagaattgc ctggaagatn 480
cagcaactaa aacctggatt aatgccact tttttaaaaa atgccatta actnttaacn 540
ctggcngaaa aatggttaatt aatttt 566

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<210> 8368

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8368

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aaattgcaa tttatttttc tacccaatcc agtatcaacg atatacaaaa ggatataaac 60
agactatcat gaatattttac aggatgacac accaaacaat taccaaggaa caaatcctgc 120
aaagtaacaa attgttgctt atccatgtcc actcaactgt acaaggttta tttctaggac 180
aatttcccag ttctctggga aggaagttct gtggatttat accttcata agggtaagc 240
aaacatgcta agagctgata ccatcatgtt tttatactaa cagccgagaa aggcttttaa 300
agaacactct ctttcaggcc aatgttacag cattagtggg ctcatagaca ggatgtgact 360
tcatcaaagg aatgcttct ctctcttgg tctccctaan gtcctcctcc tagtacacag 420
gaggagtcc ccataataac accctgggtt ccaacanaat ggnggggtag attatcaacc 480

```

ccncaatggn gaaaaagaaa ctggaccccc ttaccttacc aaatccattc cagaatctgg 540  
gggaggcagt ttncaaaatt tttacaggn cgaccctttt n 581

<210> 8369

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8369

gagattcgac cacaaacagt tttaatggtc tggttttctc cctagttccc caactgtttg 60  
ttagtattat tattactaca agaataaagg attcctgaga gcctgtcccc tctctcctg 120  
tggccccctt gacaggactc atccctacca accccccacc cccccgcccc ggatttctgg 180  
ggaaaaaaag aagtgaaagg cactgcaggg gtagggggct tgagtccan tgagttgggg 240  
ttgggcgggg gcgggggcgg tggtagggcac tagggcaggg cccggcctag aggaggaaag 300  
ttccagtcca tgcctgaagg aattgtggan aggtgtgtcc atccatgaca ccccatcag 360  
tccttcctg aacctgtcta ncaggcntac ctaagtccca tncctccacc cccaggccca 420  
cactgggggt tctgnagcag gagcataaaa ttaattagtg ttggctcaca aaggaggaat 480  
gganngtcca ttntattgga cttcaangn caaaacccaa agggagggtg caaaaaacta 540  
ggataatcct caaatgctct tntnttaa 568

<210> 8370

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8370

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gattctgtag aaatagatcc ttctgattct gcattctatt tccttatggc aactacaaca 120  
ggaggaatcc agctggaaat gccactaacc ccacaatcca gcacctgaga gaggaagcca 180

gtcggagcgc cgtgctgggc tcactcactc tggcctgcgc actgggggttg tcacatccat 240  
 tttccactgg ctatggggaa taatatttgg ttaaggctgt tgaagccctt gcttttgagg 300  
 ttttacatta tttggtaatg aaagccgttt tttcttcctt ccccaggctt atgtgaagaa 360  
 gccacgccc actctcaaca aaacagactc ctccttggga agcatctcca gccctgggac 420  
 agacacctcg ctgcgactta gggagggaca ggattagccc aggaataaaa gcattttaga 480  
 aatggtttct gcaccttcan agctcaacaa ttcttgnacc ttttanatgg aagggatcna 540  
 aagtgaacana acctgttttt 560

<210> 8371

<211> 450

<212> DNA

<213> Homo sapiens

<400> 8371

gaaatgatct gtctttatta tgtcatcaga aaacaaaaaa atcccccgag tgtaaacagg 60  
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 tatgtttaca gtcataaaaa aagaaacagc ctggagagaa gtgggggctt tgaggatgga 180  
 gagaagacng gggcagacac agactccaca tctggccctg tgggatttgg ggttcccata 240  
 ctgatccaag ggctatttag atcttcagag ttaggtgaca atgggatttg atttccttag 300  
 ggaacaaact ttgtgaaact gatcagaggc tgagatccag tccctagtat taagtggggg 360  
 aggtgagggc aggnaatgtn aggggctggg ctgggtntta gangctgaan cccaggantc 420  
 ttttcacctc ttccaagaat ggggcccccc 450

<210> 8372

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8372

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 actcttcaaa agaaaaaaat ataattctgt aagcagcagc agcagcttcc aaggttctga 120  
 tgtgacgggt ggggcagctc ccaggagcaa ccgtgaactg ggggggtcca ggcctgagcc 180  
 ccaggtagtg tcgctgggaa ggggcctctg tggagggcc cgtttttggg gacacagcac 240  
 cagcacatca gggctctgtca ccaacacgat cacatggcca gggcggggca gggagagctt 300  
 cggctcacag cagggatcgc ccggtggcag gggggatggg gcttctgaag tgtggtcagg 360  
 ggccttatgc ccggaggcgg gaaggatggg gcttctgcag tgtaccagc ggccttatgc 420  
 agaggctgaa aaaggagggt gggccctgaa aaggacttgg ggggtgtggca acttctggcc 480  
 ttccttcana acaaggcaag cacccttaag nttcacactt gtcccaatgn c 531

<210> 8373

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8373

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 tctaaactct ttaagaaggc catcttctgc ttccgatcca gcgtaggagg agtgctgctt 120  
 gcagtgagct tgttgaaggc atctgctaata ctctggtaaa taactgggtc ttgctgactt 180  
 gatagtaatg tttcgaccag ttcagaatat tcagcctggt gcaaacacac caacgtgtag 240  
 aaagcttcgc cagccgcagt ggtcatctct gtgttggtgt tttgcaaaac cagcatatca 300  
 aaaaccagct taagaaagtg ccgtgttgct agaaaaagtg gtgagtctgt ttcttngtct 360  
 tttgcacact gttcagctaa cgggtgtcaag gcctncaggc aaagctggca aaccttcgaa 420  
 ctcatgatg cattcctaata tctagggagt acatcagact tttnaacaga tcctcangaa 480  
 acttggggan tttttcaggg aaaatttccc cgattaatgn gnnta 525

<210> 8374

<211> 521

<212> DNA

<213> Homo sapiens

<400> 8374

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agacttttag aaaccttggt tagtcggtaa caacattcag tagataatta agggaaacaca   60
ctgcacaaat tcatttccca cttagcctga ataagcagtt tgactactta atggtttctt  120
attgtaagtt ttcctatggc cagggaacac agctttgtaa gtagtccatc tttctaaaac  180
tgaggtaact ttctaaacat taaaagtctt tagtaacata ggggaaaaat taaggcttaa  240
ttacttagaa aacaaaatat cacaattaca gaagcacatt taattacaaa aattataaaa  300
ttatattaac tataatgtagt ttttaatatc tagtatcaaa ataccttttc tactttggta  360
actaaatfff tgagattaag aacaaactag ttcaatcatt ctacataca aaaatttcat  420
ggttatatff attaaaaacn aaataatgcc aggtctggtn aaggtaccat ttttccccag  480
ataatatng  gaatngggga accgaattgt aaaattcaat t                        521

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<210> 8375

<211> 527

<212> DNA

<213> Homo sapiens

<400> 8375

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gggatgggaa aactttatta ggtttggttt ccagcttcgg ccacgcgggc tccgcccgcc   60
ccgagctcgg gtcacggggc gcccccgccg ccctcctcgt cgtcctccac gtcgaggccc  120
gggatgccgc ggatctggcg ttgcagcagc ccctcccagc aagggcacgg cgccctcctc  180
ctcctcctct gggggcgggc gcggtggcgg caacacggnc ccgggggctg gctctggggg  240
cacgggaggg tgcgccggca cgccctctgc accctccgag atccctgccg gttcgccctg  300
cgccccctcg tccagggcac cgnccctcagc ctgctcctgc tccttctctn ctcgggggctg  360
tcggtgaaag ggntctcgcc cttcaggtaa cgctccagct tnttgctgat gaagcttggt  420
gttgagaata ctggggggca ccatgaagga ggactttttg gactggtcca atatgagcct  480
nccgnttccg gttgggaatc catgggcttt aaanncttnt ggganna                    527

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<210> 8376

<211> 527

<212> DNA

<213> Homo sapiens

<400> 8376

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aaagaaaaac aaaaagaact ttactttcct atgttaatac aggtcaagag accctttcct 60
ctcaaaaggg ttggtaacac cagttcttag caataaacat aaggcacttg tttagattac 120
aacatcactc ctttttttcc acttggtttt ctaacctgt tttccccca cagtatcatt 180
tgaaattaat aggatgaatg aggcaaatac gagacgatcc agttgatact actcagagca 240
agatagtaca gtacagtgtt tcaggggtga tgtctggaca taaaatgaac ccagtcaagg 300
tcctctgaca ccaatgtatc cactatcaag taaacctgaa agaaaataaa agattttattc 360
aatagttcca gtaaaattgg gttggaatac aatacacatt aggaatttag cttctcacgg 420
gtggnatctg catcttaaga ggtctgagtc ctatgaatat tcattcttag acaattcatc 480
ttttggacca tttnnaggac caattaaang aattcatttc aatatac 527

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<210> 8377

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8377

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actgtgaaaa gtttatttgc atcgattaat tccttttttt caccatcata agagatatgt 60
acatttgttt gctatttgtg atcagagaaa agacattttg gaatggataa tctgtttcta 120
ccattcttta aagaaaaaag ctttaaaaac aaaattcaag tgcaaaaatt tccagtagtc 180
ttcctacctc cagtgtaccc cagcaaaaata ttcatactgt tgctgttagg aaattaatca 240
accataagct tcaattaccc actttttttc ttccctaagg tgtctgtact tatgaaaaca 300
tatatagcat attcctgaaa gtataccata ttcctacaaa gtaaggagc ctagaagcaa 360
cagtgatcac tgcctttcag tgtctccaac cccatgtaac cactgatagg ataattcagt 420

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ctctaagtca ttgatctac ccatttccta aatacagcga tcaacttcta ttttaacaaag 480  
ctagtctggg gttactaaca cgttccccc aaatcaatag ggcctg 526

<210> 8378

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8378

attttaatca gatatacaatt tattatggaa ccattcattt tctgctcatt agcactaaac 60  
atTTTTTTtg ggtcaagtat ccatgtcata ttatgtagaa aatggtcctt catgccaaaca 120  
gacttacatg tataaaacat gaacaccccc aaactctggg gagtattcca gaatggggca 180  
aaagagagggc tgggaagtac catttactac acaaatgtaa taagatggac agaaaccttt 240  
attagagttg gaaaatcaag ttggaaacaa acacatgagt tcactactta atgcatttaa 300  
ttccaacccc tcatttgaat catcttggtt acatttaaga ttctacaaca gttataatgc 360  
gacgattcag aggtgggtctc aaagttgtta cagtgttaaa aaaattatag taagcagtat 420  
aaaattcaat ttattatggg gccagggggg attcacaacc attctttaaa accnttagag 480  
ccaaccceng gcaagccttg nggcttacac cctgnaatcc cagacttttg g 531

<210> 8379

<211> 401

<212> DNA

<213> Homo sapiens

<400> 8379

catggcacag agtttaatgt gaatcatgag atgagacaaa agcctcctcc agggcgatgg 60  
gaagacccag ccccaaacca gactcttgag cagcagccc taaaccagac tccgggaagg 120  
ggctgcgtgg tcatgcaccg cctaagactc agaggtgaag atgggaagac ccagccctaa 180  
accagactcc tggaaggggc tgcgttgtca cccatgcct aagactcaga ggtgaagatg 240



ggaagaccca gccctaaacc agactcttgg aataggctct gtggccaccc atggccgtaa 300  
 ggctccggga tggagacagc atggacaggg acctngcaca aaggcatgtc gggagggcct 360  
 cctttccaag gnanagnccc acctgntcct tntaagcccn c 401

<210> 8380

<211> 493

<212> DNA

<213> Homo sapiens

<400> 8380

gaaagtttta tcaaagctaa aatttatttg gtgcatactc ctcttgatat caggtatgtt 60  
 cgcataacc tttttctttc atgtgtaaaa acaaccatgt gaggtatttt acaggtcaaa 120  
 agaaaacaaa aactacttcc ttattcagtg taaaggaggc ttataagcat tccaaaataa 180  
 aaacaaacaa aaaccagaca agtacatagt ctattttccat ttccttttat acatcctctc 240  
 tatatatcac acatttagca ataggagaat agagaactaa ttcaaatgca agggaatctt 300  
 tttttagat tctgttgaca gatgctcttt aacctaaaca ttttctactc taaacataac 360  
 ggacttaatt gncctcagta cgtgaaataa ttttaaggng atctagtact ttgaaaattt 420  
 cattcactta agaacactta agctggaaaa tagcactatt tttcagangc aattctnaac 480  
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<210> 8381

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8381

ccagacaaaa tgtattttatt tatttttttg agacggagtc tcgctctgtc gcccaggctg 60  
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 agcctcccaa gtagctggga ctacaggcgc ctgccacat gcttggctaa tttttttgta 180

ttttttagtg gagacggggt ttcactgngt tagccaggat ggtcttgatc tcctcgtgag 240  
 ccgcccacct cagcctccca aagtgctggg attacaggcg tgagcaacca cgcccagctg 300  
 tcagacaaaa tttttaagaa aacaaaattt ttccagaat attacattac aaaaatcaat 360  
 gaataaatga actacactgn aactttaata cttattccat atgaaaaacc aaactgggtc 420  
 tggcaatttg attgatctct tgagaagttg cagtgcattc attccatggg tnaaacccgg 480  
 tggtaggcat tggcgntnct gctgctgggt gaatggcttc tnggcttggt tgttggtgga 540  
 aaccaa 546

<210> 8382

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8382

gctttcagga aaggtttatt gtggtgagtg ctttctgtac agtcgactgc aaatgaaacg 60  
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 ctcatgcaac acgacgctca ccgcggtctg ggccgtgggg ccgtcagaga aaccttttta 180  
 aaaaatggag atgaatgtta cagaattgga caaccogaac tgcttttcaa aaccagagga 240  
 aggaggttct tagccgttac tcagatacca atgctgggga gggaggcctg acttcagcaa 300  
 cagctgtggg tgggctggag gccggcgag cttggggccc cccacgccag cttgtctnaa 360  
 ccaccacctg tgcggggctt gcttcnaagg gtcaacaaga gcaactgatg gcttgccact 420  
 ttcangcccc gagagacaag gcttacgtac ttacttgca gccaggtcc aagcccntgg 480  
 aaggggtcct agctccgttg aattctgnat nccaagtggg caccttgagg aanggtcttn 540  
 aaggaangct 550

<210> 8383

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8383

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gttgcttaca agtagtttta ttattaattt tagagtaaac atcaccaact tgggcacaat   60
tccaaaatag agctcttggt ggattctggt cataaaattc tttttaagc ttgttaagat  120
cttataaaat aagaaagttt tccaatact ttagaaaaat tactaatcat taataagtcg  180
atttataact caaagtaatg gcctaacatt ttgaaagatg aaacaacgct cctcttttga  240
acatctaata gattaagtaa gctcagtgtc ccaggcttca gaggagacag agaagtcctc  300
atattgcaac ctgaccagat gactctggga gtgaattaaa tgcttaaaag aggtcagtct  360
tgcaaattcg atgaagcaca gaatacaggg gaactgatct gattctgata aaagatacat  420
tactctcaga aaggggtgaa gcttaaaatc ttgcagttct tgggcaagga aggagtgcc  480
ccaggcaggc accaaccggc ttgaaaggaa aagcttgagt gaattcaagg tctattggga  540
gang                                                                    544

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<210> 8384

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8384

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agatcttcct tcagactctg aattaagttc tggttgtag tcaaagatgc atttgatctt   60
gcaatttcag cttaagtct accaatttct tctgtcaatt gttgaatacg cttagtatga  120
acttcctttt cagaaaggag cttccgatat tcttctgtat ctggatcttt ctgttgactt  180
actagatgct ggttacgtgc tttccaacgt ttgacatcct cttctaagag cttcttctct  240
gcctgcaaca taccgctttt ctcaactcagc tcagcatttg cttcttgtaa gggtaaaata  300
tctaactcca gtttctctac ctttgcttgc atttgctgna gatcctgntc tagtctctcc  360
ttctcttctc ttagcatttt attggntctc ataactacat tcaactggttc aggtttcttc  420
atcagntctt catgctgagc cattggtttt gcaggtaacct naacatttca aataaatntc  480
cttccaacat ntaccaatag gtgnaagcta cccggtccta tgagctcaaa nctc       534

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<210> 8385

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8385

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gaaatgttat gcagtcattt tttaaatgag gtaaatttcc atgtattaat gcaagaggag   60
gtccagaata caatgcaaag tgaaaaaagt tgcaaaacag tacatataat atcccatttc   120
atttaaaaaa aacctatata caaatgtgtg ggtattcata tatgtatata tgtgtatatt   180
aatatataaa cacaaacaga acaacatctg ggaagacaca caccaaatta agttattctt   240
ggagaatggg agtggtgaga gggactaagg aaaaatcttt cactttttac ttacacatt   300
tatgttttgc ttgaattttg ttggctaaca ttaataattt ttgaattttt atcacaataa   360
aacattttta caaaataggc acttttgtaa tcagatcaat agagttataa tgnatgtgtt   420
ttaaataaaa atagctccat gggggctggg ccgtantggc tcacacctgn aatcaatccc   480
aacactttng gaagncnaag gnggccaaat atccggcaag gantt gagaa cagctggcca   540
a                                                                    541

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<210> 8386

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8386

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gtatcacgca gatttataat agccgaagaa gcaacataga tggccgtcaa tggacacatg   60
gataaacggg gaatatttgg ccatggaaaa aaatgaaata taggttgagc attcctaadc   120
cccaaatcca aaatactaca aaatccaaac tttttgagta taatgatgcc acaagtgaaa   180
aattcaacat acaaatactt aatacaaact ttgtctcatg cacaaaattg ttaaaaaatat   240
tgtataaaat taccttcagg ctatgtgtat aagatgtata tgaaacaagt gaattttgtg   300
gttagactct ggggtccatc tggaagacat ctcattatgt aaatgcaaat attccaaaat   360

```

ttgaaaacat ctgaaatcca aaacacttct ggtctcaagc attttgggta agggaatact 420  
 taacgtaaac ggacacaagc tacaatatgg atggactttt ggtggtaatg gtttttgaga 480  
 cagggcttgt ctgtcccca ggttgaaatg caanggnca acatggntac cgtgccn 537

<210> 8387

<211> 501

<212> DNA

<213> Homo sapiens

<400> 8387

ctacaagtct tgtttattga aaggatctga aaagcgtaat aaggctttca atgacattta 60  
 atacattttc aagaaattaa tatgaaacat taaaatttac ttcaaaaatc caaagttttc 120  
 tagatcattc ccattctcag ctgctttaga ggtcagttca caccttctgt gttcagatga 180  
 gcggctggaa ttctgaacac tgccgtcttc cagccctaac gctgggcgct ggtccctctc 240  
 tcctaagccc acggctgggc ttcccctgtg cccagggtca tggcggactt naagccaggc 300  
 cggctgcccc gaatcacact cagggttttt ggacgctcaa gtccacagat gctgaggtgc 360  
 ccagacgagg gtgagcaggg agacacatgc ctcggagAAC gtgcccaggc tggccaggcg 420  
 gctgcnggaa gcttcttacg ggcanaggaa aacntcttgn gccttnccta tcgatctcca 480  
 gccntgaagg gcaacttcng g 501

<210> 8388

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8388

gttttgtctg tttgtttgag ccagatggag tctggctctg tcgcccaggc tggagtgcag 60  
 tggcacaatc tcggctgact gcaacctcca cttcccaggc tcaagcaatt ctctgcctc 120  
 agcctcccaa gtagctggga ttataggcat gtgctaccac acctggctag tttttgtatt 180

tctagtagag atgggggttc accatgttgg ccaggctggt ctgcaactcc tgacctcagg 240  
 tgatccacct gcttcggcct cccaaagtgc tgggattaca ggtgtaagcc accactcatg 300  
 acccaggtct ccccatcttg atgccttctc ttgccccaca ccatacagct ctgcctggag 360  
 cctggaggct ggggtccagag tggctcctgg ctccccactc tnaacaccag gaattcacca 420  
 gccagaggag ctgataagtc tgggaaaact tctggggccc ggctnttttt aagattncat 480  
 ctgctgggcc aatgggggnt ttggccactg gagcccggtc ttgccccgn attgccac 538

<210> 8389

<211> 467

<212> DNA

<213> Homo sapiens

<400> 8389

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 tagtaaaaaa caacatggct tggtaaattt agctcttttt cttgacattg gcaatgataa 180  
 tacaatgcct gtgggtgtata attgtcatgg ctgacttata aatccctaca gatatgtggt 240  
 tacttctcta ctttcccttt ctttggcttg ggcaactgcc acgttgatgc actggagcca 300  
 ttctgctgca ttcttctcat ccttggcctt aaagacatag gttttattgn ctgtgaagat 360  
 ttcgaaagcc ccnnggagaa aacggccctg cgtttcttgg gcacaagcct tnacactctg 420  
 gcttttctg agtctattgg gcancntcan ggnctcttt agacttt 467

<210> 8390

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8390

aacacgcaca tattgtttta taattcatga tgcaaagaat gctacagagt gaaatcagga 60

tttgaaaga ggtaatcaaa aaccaaaggt taaaagtggc tcatataact tgaaaatttt 120  
tagatcaaag gaatgccact ttgaaaaagt tttacgggtca gctgttaatg aaatgactta 180  
catttttggga aggactccta ttcggtatgt agtctgacct cgcctactcg agtagttccc 240  
tctagtatcc ttgccagtct ttggcttcta agatctgaga atttctgggg atggggagtt 300  
cgagtcacaa tattaagaac tagtttgaag ccagctccag ggtagtctgt ctttaagtct 360  
ccactactcc gctccaaggt gactcataag gtcgggtccgt caactctgca ttatatggcc 420  
tcaacaacga aattaaaaca catactttaa cctccanan cttctttgg caggccaata 480  
tgtcactttc ggactgacta ctacctttcc ngctggatct taagcacnt tcaccaaata 540

<210> 8391

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8391

caacgtagaa aagttttaat gagacaaatg tcaaacaagc acatcaactt cttaaaaaac 60  
aaagaaaatc tgaaagttaa attacaaaa cacttataca gaaaacttgg catttcaaca 120  
gttccaaaca catgtacaca agttttttct aaaatcagtc agaaataaaa taccttgtct 180  
ccctttcctc agctgcttct tgtattttta ttaaaaagaa acaaagaaat ctgtaacact 240  
gaataggcaa caacttattt cttgagaaca taaaagtaca gtaatatcta caggtgtact 300  
gggaaacatg agttaggtat tgtgctagcc tgtaacttca ttactgcct cctcactgag 360  
cacagaggag agaggaggtg gcacagacct ggtctataga tactgacagt tttgnggcat 420  
ctgaatccca gccaccagaa gcaggtgagt agctactggg gaaagacagc ntttcagaag 480  
ccagctggct aatttgggga aaatggattc ttcctggang gcttttttga aaatttatgc 540  
c 541

<210> 8392

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8392

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gttttttttt tttttttttt ttttttaaac cattactgng actttattat aatagttaac 60
aatatttttag nggtatacaa tcatatcaca attactcaag ctatatacaa acaggtat 120
atataagtct acatttaaaa aagaaaaagc aattaatgac ctccccaaaa tcacattatc 180
atcaacaaga tttttttcta aaagttacgg ccaatccaat aacaaaaaaa ttcacagtta 240
ttctgcagac attttaaga tgcaggaatt gnattgcaca ttatataatt ataaaccata 300
acaagcagtt atatatatta atctagtttt tcacaaaatt tacattatca tgcaatactt 360
cactgtcaca gaatgatgga actagaacag gttacttac aaacttttaa ttatagccac 420
aaatttagaa ttattttaaa gntatatttc aaattattat actaaaaaaa cacttcaggg 480
taataaaacn ggcccccatc atnatttggg tcacagatca aaatactttt ttagggggcc 540
tccttgggct ttgcct 556
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<210> 8393

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8393

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gttttttttt tttttttgat attcaagcat gttcttttat taagcatagg atgcgaggca 60
cagcaggagg ttttaagtaca atgngaaagc aagagaactg agactgtgat tgacagacaa 120
agggattaac taacgtttta ttctctgccc cccaaaatat cctgtgtatt cttaagtata 180
tacgttccc ttctgcctt tcaaggtatc taaggaatga tttgaaaaat ttgttataat 240
ctctaaagaa ttttttgcac agcattagca aaggagtcta tgacaagtac tttgccacct 300
ggtagttctg cgtattctac tccctctggg tgtcactgtc atcctcactg gctgggacaa 360
ggttctgaga tttgtctccc cagcagttgc taagctggct cagtcttggc caggatgaat 420
gaaacaatta tctcctggat caatgcaaca aggagcatga acctttgctt tttctttcct 480
aagtinggaaa aaggcacccc ccgnttcaat ggtggncctg gtggaactgg attggaacaa 540
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g

541

<210> 8394

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8394

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gtcataaaaa tgtgaaaaca ttttattcta tgtacaataa tgtacacaaa tttaaacagg 60
tcaccaaaga gaccagaagt aattaaagag gtatatattac agtagcacat cacagtaaac 120
ggaaaaccat tcacagattc aacattgata ctgtttttgt gcttggttac aactgaagg 180
tgaaggatat tactccattt tggatgaact gaattttaaa caaatacctc aatcattaat 240
aaatgctatt ttcatacagtc agtatcatca ttaaattcct cagctgctgc gcctgtgtgc 300
tgaatcactc catttctttc tctttgaaca tcatcatcac aatctgtact gtcattcttcg 360
ttcaattccc tgtcagattc agcagcagct tctcttacag cttcctctgg agtttcattg 420
ggtggaataa atccattggt ggtagatcat ttgaattatc cctggatata atcttcgatg 480
natactttct gatggcccat gggcaagtat ctttgaatgg tcaggcnttt tcgaaggcaa 540
gtgcnttg 548
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<210> 8395

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8395

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gacaggagga aaaaaaattt aataatatat gtttgcacag gagttccacg aaatatgaga 60
ctccaagaag ggtcagatga ttgacactca tacaccatcg tgagctatcg aaaagaacgg 120
cagtttggga gttctgcagg gagttgacca cagaagtggg agagtgaagg gaagaagtgt 180
gtcgtgaata aagcttggct ggttttcaga taaaaggtct tgcgagtggc caggtgtggt 240
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ggctcactcc tgtcacgtcc cagcactttg ggaggccaag gcgggcggct catgagggtca 300  
 ggagttcgag accagcctgg ccaacatagt gaaaccccgt ctctactaaa aatgcaaaaa 360  
 attagctggg catggtggca ggcactgtaa tcccagctac ttgggaggct gagacagggg 420  
 aatcacttgn atncggaagc aaaggttcat gagcttaaaa ccgcccntgc atttccatnc 480  
 ccggtgactg tgnagactc ctttaaaaaa aaacgngnga aaaaggtntt tgagt 535

<210> 8396

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8396

gagatggagt cttgctctgt cgctcaggct ggagtgcagt ggtgtgatct cggtcactg 60  
 caagctccgc ctcccagggt cagccattc tctgtcttca gcctcccag tagctgggac 120  
 tacaggtgac cgccaccacg cctggctaata tttttgtat ttttagtaga gacgggggtt 180  
 cactgtgtta gccaggatgg tctcaatctc ctgacctgt gatccaccag cctcggcctc 240  
 ccaaagtgt gggactacag gcatgagcca ccgtgccag aatgttctgt tttgtttgt 300  
 ttgtttgttt gttttttgag acagggtctc gctctgtcac tcaggctgga gtgcagtgg 360  
 gcaatcacgg ctactgcag ccttgacctc ccaggctcac atgatcctcc acgacagcct 420  
 ctggagtgtc cctncacttt ctttcttaag ggcccctnaa ggacatgtca aaaggcctga 480  
 gactacttgg ggggaagtct atgggcaagc aggcttgcca naactgaact tgncccttgcc 540  
 ctgg 544

<210> 8397

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8397

ctgttacaaa caggtctttg ttaaagatga gaagccaggt ctttattaaa gatgaggagg 60  
 gggcaggaaa ggggggcagt gcctcctcta cccactgcct ttgcctgccc ggggtgaggg 120  
 agcccctctg ctccacccat gcccccatg atggcacatc tgtatgaggc tgaggcatgg 180  
 ggggcagtgt gaagaacagg ggcaggttcc aagaaaaaga agaaaaacc ttcccacagc 240  
 cctaataaat aacagaaggg tttgggatga cctgggcaca ggcaagggga gacacagcac 300  
 cctgaacccc aaaacctctg aagtggggca agccctactt aagtagggga ttaggagaaa 360  
 gtgggtgana ggtgganagg cccgacacag ggaggggctt anaggaaaan ggggtcccaa 420  
 nggcccttgc catgggggaa ccttgcccc anctacagct tggctccttg attcttagag 480  
 aagactcaat gacaaacaat gancctatct tccttccttt cctttgacat cttanaaac 539

<210> 8398

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8398

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 atggacacca tgctgntgct gccaacacc gtgatgcccc gcgcctggng ccgggcgtgc 180  
 gtctctgcgt accacgtatg catggccacc gagtcgaaag tggggatcag ggtcacctgc 240  
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 agaactcctc atccaccang tgggcgctgc tcccgctggg caagtaggcc aaggttccaa 420  
 ttagaccgn gacttgntg gggttggctg aaaaccnng gccggctgct ggcttacc 480  
 ctacgggcct tgantggcaa gtctttgggg gttaaggact tttntgaaa aggggttccc 540  
 cggctttnct 550

<210> 8399

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8399

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aagttttaaa aaaagtttat cagcttagtc tccaaaacca ggaagaaaat atttaatgat   60
taaaaacaag tatgacctgg aaagatatta gactaaaagg aggaatcaca atgagcaggt  120
gaaaatgtta aaggaaagct ttcaatacac caactgaaaa aggcatctct aattggccaa  180
ccaaattatt ctttttagatt attttagcca aataaaaaga aatttacaga tggataactg  240
aggtccacta acataaggta gaaacaaagt ttaagctaaa aattaaatct atattttggt  300
gcagataaat gtgagattta cctacagcaa ttttctattg atgctaaatt aaaagcatga  360
attgacatcg tctaacagaa atggtttgac agatatattc ttggctttaa aatgttctta  420
cgcatatgca tagaaatgcc atganggata agaataatct tctggattgg ctgtncagtc  480
ataaggcctt tgn cattggt agtaccttcn atggngaata tcagtagggc cattaaatta  540
a                                                                    541
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<210> 8400

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8400

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aacaagaatg cagatgccat ttatttggtc cataagtata gtcgttattt gagttttaca   60
aaacatcgaa tataaataac ctgaaactgt aacaatacac aaaaattggc ttcttacaca  120
gacataccag gcggtacaaa ctgaaaactt gagtaaatta acattgtttt acattaatat  180
acatagtgcc atctaacatt taaaacaag tttcaatgca tagcactcga tacttctttg  240
aatctgtttc aatcagttta gagtatgaaa atggtttagat ctaggctaaa aataattctt  300
cttctagcca aaaataaagg cataatattt ataaccaggt atcaacttta ctaaaccaca  360
atattttgaa actattaatg atacctaagg gtattttacat taaaaggca acatgcattg  420
ngttggttta tctcatgact gggtatgcac acacttggtc aaagggtttt taaaactata  480
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ttctactttc aatccgcac ctagatgggg ctaacagtct agcaaaatga ag 532

<210> 8401

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8401

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gaaagtcctg aaaacaactg actaggtcta aaaaagagaa aaagatcttc aatcttgga 120  
tgcgttgcca acacaacatg acagtagatg tcacacttag gtttgcaaaa aatataagca 180  
tttgggggttc atttcagtat tggcttaatt taaataaatg tgaaacgagc cttaaaaatg 240  
tactttccag tacttttggg atttttcata aatattttag taaaaaagaa agacaattca 300  
tctccttttag acagacagtt cagggttaaga ctgtccataa ttttaactat ccctttcctc 360  
ccaagtcaca tttttgtag gactaaatat atcatactct tggcagttcc cttgcttggc 420  
tttctcccca ttctgagttt tgaattttct gcatgactgg attcaccctc caacttttgg 480  
aaaaataaaa gtttctcact attnaaanaa ggngnattga aatgggatch ctcaaa 536

<210> 8402

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8402

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aaaacaaaca aagaagtagt cacagtacta acatttaaaa cccagaggag gaactcacat 120  
gttggtgttt cagttttgac agacctacta ggatgaacta tcctgagagg gctgttgcag 180  
agggtgttga tttcagcaag gcatttgaaa tcgttagatt tttttttaaa ggataaagca 240  
gaaataaatt taaattcatg ggcacctaag gaagatgtat ttggacctct gtgctgttct 300

ttggtgtgcc agaagcagtt ctatcacttc ctcactgtag ttgaagagtg gattcagtgt 360  
 tatcccacag aactcacgtg aaactgggca gtacacaaga gcaggtgttt tggacgtgtc 420  
 tcatcatagc tgctttaaga ggaaaaatga taatnaatgc ctgtattncc tgcccatgta 480  
 tttttggtgc tnaaaatggt ttttnaaaat ggcttttcct ggggaancta gtgaagtnt 540  
 ccc 543

<210> 8403

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8403

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 tgcacttagt gcttgaccag gccttgagga gagatacagt accgcttcca gagcgccaga 180  
 ggggccagga cttgaggact tcgtgagggg actcctgcct atctttccct gccttgatcg 240  
 tgtgggacag gccttgaggg gtggtttgca ggaaaggagt tggctctgggc ctcccagtta 300  
 aaaccaggag ggtcccaaga gatccctcga agaaggcaag gatgggatct aagattgcag 360  
 gccactgtt agccccctgt gtgcctttgt gcgaacagga aatgacgcc ccttctcaag 420  
 atgcagaaaa ttgnnataaa tataccaggt tnggtgaaaa gtggnggctt ccttggacaa 480  
 aggggccctt gtgcaatgca cannetggac aactgggtccc cagna 525

<210> 8404

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8404

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 ggtttacata tgcaagtaaa ttggacatac aaacacttag attccacctc taccaaatac 180  
 cttgattaat gcaaagagga gggggaatac tgacacagga aacctgcccc gaaactagac 240  
 tggcagagat gtcagggttaa caaactgcta aaagttacat ctccaaaaag gcacttatca 300  
 ttgttataaa agtgcttaaa atctaaactt gaaccttggtg cctgggtttat aaattttacaa 360  
 gaaactgcaa agaaccacag actagttttt aatatcaagt ttccatacaa aattgtccaa 420  
 gaattttatt gcaatacctt acatgtgaac tgaaataaac ttgcaaact caattatact 480  
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<210> 8405

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8405

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 gtttgttgaa ataaatatgg aaataaggct gagcaagaca gccaagccag ccaaactgaa 180  
 ataaattcat cactcatggg ctctcaaggg atggaaaccg tgcatttttt tctaaatgat 240  
 tatttctgaa gcactgaagg aatggctata tcactaatga ggcctgtacg ccatgactgc 300  
 tgattataaa tgacctgcag agagacaagg agatagtgga tatgaagggg agatggtggc 360  
 atggangcga ggggaagcag ctgctgtgga ggctgcagct gctggtggcc agcantgggg 420  
 attactatcc aaaagcaact nttcctgctt ttctgacccc acantaagcc ctgagaagaa 480  
 cctataatta ttctggngga attcaatgan tggaaanggg tcaaaagccc cccaagatt 540  
 naaaant 547

<210> 8406

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8406

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aaagaggcca gttcaacatg gcctctaccc tggtagaaac aaaaagtga aagagaagaa 180
aacagaaatc aactaagagg tgttgccagt gtctctcagg agtggggccc tggctgttgc 240
ctgggggtcat gaaaggcaga gcctgcagca tgcagtatgg cagccgggag accttgcagc 300
cacatcttcc tcaccccggc acatccacat cccaacttag gtgtcatgga aatctttcag 360
cagggttctc ctccgctgct ccgctatatg catctggttc tccaagtccc ctctgtcata 420
actgtctgca cgctccactt ttcattgagan ggtttcgatc ttagcctccn ctgacctgct 480
nggatttnaa caagnntttt ctgggtccg gactcctgga atatgcctat ggggaggggg 540
t 541
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<210> 8407

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8407

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atacagctca atctgtaagt gtccaagatc cagggggcag gttctcaagc aggaagcctc 180
aggcactctg gctctgtggg gacctccctt gggcatctgc ttgagaatct ggggaaggga 240
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gcctggtccc tgtgctcttg accttcatct caaggtcaag gagagggcac ttgaccaaac 360
tctgccagcg aggcaaagta atggtgattc aagtagtgng gttcaggagg gaaggtangg 420
ggcanaccag aatgagtgcc cttaaaaagt cctgggcaat gtctgctggg gcccaagcaa 480
tgggcccagc ntntnaaagg ggttggnana agggttgaa ccnccnnttg a 531
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<210> 8408

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8408

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cctcattatg tatatatgca aatattccaa agtctgaaaa aatccaaaat ctgtaacact 180
cctgtcccaa gcatttcaga taagaaacgc ttagcctgtc ttgggaaaca gcagccactg 240
gatggaaagg ggcagccagt agcagaggcc tcagcccctg ccttcacctt gagaatcttc 300
tgtaacaaaa gctgccagct ttcagggaag aaaaagaatt ctgtggcctt gacttaagcc 360
cagagaaaca ggaactgcca aaccttgta cccagcagaa cagacagaga gctgacctgg 420
cttcatggca aagcaacagg agaacctgga nanggtcaat tcgggggcca gcagaaccag 480
gctgggttgg aaggcttgct actggaagca aagtggccca cattctanaa agagacatca 540
gggggncc 547
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<210> 8409

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8409

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catcccaacc aatattttatc catatgaaca gataaactga acaaaaacat agttctgata 60
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atttaggact gttttgttaa taataaaaac aggaattata tagaagataa aacaccattt 180
tttactgcta tataatgtct tgctatataa aacataccct caacaagtca aaatatttaa 240
aaccagtgtt tcaaatacca aaaatcacag ctatgttact gttcagtaac tccactcaaa 300
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taaatgtag tactgcattc ttgaaggaaa aaaactgcag ccaaggcaag aactctgaag 360  
 ttgactca gagtttaaaa gacagacccc tactctgcaa actgaagact gccactctgc 420  
 ttcaataact ccagcctgnc acattttact tcaattggnn aaagcactct gntgagaatt 480  
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 ana 543

<210> 8410

<211> 502

<212> DNA

<213> Homo sapiens

<400> 8410

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 ctccagcctg gaaaacctgc cctcccatcc cccttagcgc cttcttgccc ttccggcctg 180  
 attttcttcg acagcagttc tggccagggc aaggagctgt ggtgggggca gtataagcca 240  
 gggactccct tcccacagat gaggcctagg gctgcaaaag ggccccgtga agaaaggaga 300  
 aggtgacagg gatccttctc ctcccatat ggagtgatgt ggtcaaggct ttatgggtct 360  
 ctccacctca aagagaaagt gccctagggt agtgtcctct gaanaggggc cagcctatc 420  
 tgcaaagggc ctctctggga ccaaagcang gcaatcttcc ttcttctgna acccaanggc 480  
 tantgtngga ngagttttac tc 502

<210> 8411

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8411

cagtttagaa agttttatit cccagggtta aggtgtgccc atgacacagc ctcaggaggt 60

cctcaccaca tgtgcccaag gtggttgggg cacagcttgg tttacacat tttagagaga 120  
 catgagacat caatcagtat gtgtaagggtg tacattgggtc ttgaaaggca ggacaacttg 180  
 aagaggggca ggggcttcaa gcataggcag gtaagagaga aagggttgca tttttttgag 240  
 tttctgatta gcctttcact gaatatacaa tttacatgtg agaggagagt agaggaatag 300  
 tcagttatac cttaatctgg cttagtgaag catgaaacag agaaagcaat catttatgca 360  
 tttgtttcat gtgaagactt tgagttcttt gtccataagg aattcccttg tgagcaaatt 420  
 ttatctttgt ggctggccta tttaggaata aaatgggang caggttgncat caatcaagtt 480  
 cccacttggc ttcctttggc ttaaagggtt tgaaantttt cnttcatatt aacctaggnt 540  
 aaaaat 546

<210> 8412

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8412

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 cccgggtctt tagatcgtca tcttgagtc cggttccatg ttctcaccgc tcttccatga 180  
 tgactccttc tgctcagcct cctcccttgc cagtctcagg gaggatcctt cacagccaat 240  
 tcatccttgg gtcccttcc caggggacgt caacagtcta ggcagggacc cttgccccca 300  
 actcaatccc catcaccaca gccagcaaag cctncgtcag gggccctgcc tcttcacctg 360  
 ctgccttcac aagccccacc agggccagac cccgcttncat cgggcactgn tctgacccca 420  
 gtgtcancgg gcacagtggg caaccagccc ggggccggcc aagcggaaca ccttaaccac 480  
 tgacttccgg gcaaccctgg ggtccaagtg gatncggncc aacggctttt tcaagttctt 540  
 cttcaagcca 550

<210> 8413

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8413

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gcagtttcaa ccactttatt agggtatatt aggagtgaat tcatggatat gaacttcatt 60
gaatgcatca tgattatatt cagatgcaac tgntcttttaa tatacttttg aaataacaat 120
cctcttccct acataatagc aaataactaa cgtatatgaa gcattggtac actattttta 180
atgcaaaatt tcttaaactt tgattcctat atagtaaaat ctataaaagc aagaaaaatc 240
aaaattatca gtttaatgga caataaggac agttgaagta tgtgtcttca agttcgagtt 300
aagccattaa atttttttaa gtaaatactt aaaggtaa at tttatataaa tatgtcaaaa 360
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agatatgcca tcatcttcca aggattatac ctctattaat caaaccaaac caaacaaccc 480
ttttaaaggt antcactntt tgaaaccgga angggacat ttcacatgn aattggttta 540
ccttt 545
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<210> 8414

<211> 516

<212> DNA

<213> Homo sapiens

<400> 8414

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gagatggagt ctcgctcttg ttgcccaggc tggagtgcag tgggtcgatc ttggctcact 60
gcaacctctg ccttcccagg ttcaagcgt tctcctgcct tggcctcctg aatagctggg 120
attacaggct cccgccacca caccggcta atttttttt cgtattttta gtagatacgg 180
ggtttcacca tggtggccag gctggctca aactcctgac ctcgtgatcc accgcctcg 240
gcctcccaaa gtgctgggat tgcaggcgtg agccaccacg cccggctagc acttcccttt 300
ttaagctagt gctggcatgc caccttcccc tcaaagcaga gtcaacttc tttgtttga 360
gagttttgta ctggcctctg taggccctt tcaggataca aaataaagt cccttcagca 420
tccacatgcc antgggttgc ctccagtg caaaactggg gtccanant tgggcaatgc 480
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atntttccaa gaattaaacc ncatggctac acncnc

516

<210> 8415

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8415

aagaaaagat aagcagtaac atttgtgttt aagctgacag gagtgtggca gtaactgctg	60
acattgcaat ctgaccgaga aagaattata gcagaaaaca ggacatactt cacttagcaa	120
taaaatggca cattttaaat acatatatat aaaattttta caaatcaagt gtgaaacaaa	180
agcactgcag tagctaaaat gggaagaaaa aaagaaaaca agcttcaatg gaaataataa	240
ctaactttag aaaatgaaaa gcaaaaaaat atatatataa attcacctag acttaagaaa	300
catcgaaatc tggaaatcag caactaagta agctctggaa atagactgca cattaaaaag	360
cacctttact tatgtgctct gaaatcatag cagcaagctg gtgtcagaat aataaccttg	420
agattacnaa gtgtacatat gggccattaa agctgttttt ggaataaaca ttttncagaa	480
gtgataaaat gatgctctgt ganccaaagc nttnnactn tggaatttca tagattttaa	540
ttn	544

<210> 8416

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8416

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tgttgactaa attctgtagt gtatttggag tgaacatcat cttgaataga gattttaaaa	120
tttcataatc ttaacctccg acgatatgat tatacttggt taaaaagaac attatatcca	180
gatataaact taacaaatga aatattacaa aatatgaaca tagatagttt tgtttcccat	240

tataattccc agcatTTTca cCctgtcctg ttcatacgag tcaattctct tcttcaattc 300  
 ctgtcccatc agccgtctgc tgaaaaacac tgctttgtct tggctaaggc tgcacaagtt 360  
 cagtctcgca ctggctcanc ctccccTTTc agcgacacca tttccctacc agggTacaag 420  
 ctgtttcctg ggctctaagt ggagtctgat ttggcattcg gtcccatcct agngctcttt 480  
 aagctnggac cctgaatcac agaaccctt tgcttgncta atattaccnc cgccgg 536

<210> 8417

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8417

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 aacaggaaag attgccittac atgcaacaca aattccaatg aattcatgat gggatcacac 120  
 atgattatga tctaattcaa gccaatcttc tcaagtccat ttcccagcca tacttttaggc 180  
 tacagaaggg atcccaggag acaaaagtgg aatgaataag aaacaaacat cttttgcctc 240  
 tggcagtact caaggggcca gaagatgtac ttcaaaaact ttaagacaat tagaatgtca 300  
 agtgccacag ggaagagaaa tgataaccag aaatttgtat ttctagctag tactatttaa 360  
 cacaacttca caatactaaa acaaatacaa ataagaaagg gttaggtagt tgggcttcat 420  
 ttactttttt ccttttcttt ttttttttaa tatctcaaaa aggaagccac tttgcttgat 480  
 atcaaaatgc tgtggaaaga aaggagggga aaaaaccccc aatttaatgt ggaatctagt 540  
 tattttcc 548

<210> 8418

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8418

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 atatatgtaa tatttaaaag ttaatgaaat ccagngaaac ttcaacttat ttcattgaga 120  
 atttactnac aaaatntaga aaacaagaat ttacctcttt taaatggcat gtctgnatta 180  
 cttacaattt gntaaatgag ttcctttcca tacatacctt aagatccaca accttggtgg 240  
 cataaataac atgattaaag ggtcaggtac aatgtatatt ttaatatggg atttgtgtan 300  
 tgatttagag cataaatatc acacagtga aaatttatca cancctaaat acagtnacac 360  
 aggggaanga aagagcttat gtccacattt ccaaggtctt tacaataacg ttatagcgtc 420  
 caggtccaac acagcatatn tgcatacaaa agcccactga tgtgaacact tgaaanggae 480  
 tctggcctgg aagggccttc atcttggggc aataaagttt gtnncngtc aaattanttn 540  
 caaaagacta 550

<210> 8419

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8419

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 aaagtgtgt ttcctatat tacaggtatc aaaacagagc aaaacatcca ggagaaccaa 120  
 actgaaactc agaaaagaga caatttctga ggcccaccag atcctgattc cattttgaaa 180  
 tactctattg cagtacctct gggtaaataat tagctggttg ctaaagacag gatctgaggc 240  
 tgggccaatt ctttaaggcac cagctgtctt gaggaggaag atgaagactg tgaatgaagg 300  
 acagcagact tgcttctagg aaaataatat atgtaagttg ggatgcctct tgcagccaga 360  
 tgtttccgaa taagtcgctc agtaccatac cagttaaaac ctttcgtggc atgtccaata 420  
 ccgtggaaga tgaacacttg ctttcttctt ttttgctgct taaaatatct tcttcaaggc 480  
 ctcttctaag gcttgcattc ttaatggcng accaggacat tgggaccatc ccnaagcttg 540  
 ancccaaan 549

<210> 8420

<211> 524

<212> DNA

<213> Homo sapiens

<400> 8420

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ggagagtctc acttcatcac ccaggttgga atgcagtggg gcaatcttgg ctcaactgnaa   60
cctccatctc ccaagttcaa gcaattctcc tgacttagcc tccaagtag ctgggactac   120
aggcacgtgc caccacgcct ggctaatttt tgnatttttt gtanagacgg ggtttcaccg   180
tgttcgccaa ggtgggtcttg aactccaggc ctcaagtgat ctgcccacct cggcctctca   240
aagtgctggg attacaggca tgagccacca cacctggcct ggattagtaa tttcggattt   300
ccaaattcag gtcaagaagt ggaatttatt atgtggnctt tgngaaaaaa atataaatgn   360
ggccttttaa atatatttag gttttttttt aaacaaangn tactcaaacc attacctttc   420
tggccccctt gaaaagaaaa aaaaattgnc catnccattg ncttctctaa tttggaaggt   480
ccgaaagact caanggtttt tacttccgnc cttcctgcna nggg                      524

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<210> 8421

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8421

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agatcaggat ttctttttat tcctcgttgg tttaaaatgg ctaatcagaa taaaaaataa   60
aagggcctct ttgtggaggc tgggatctcc cctatttaga ggtagaacc caggatatcc   120
ctctaccag caccatagtg aggtgggctg aggggtaacc cccaaggac aatcggaggg   180
gcctaggcct gccactcctt ctctctatcc cccgtttttg gcatgtgatg aaaaatattg   240
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atccaatatt gtttgagcta ggccaagtta ttttctgat ctcccaccac caccagtgtc   420
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ttcttttcaa ggccttttct tttgngacca aanttengac ttaacttttc ccagcttntt 540  
ctaatacac 549

<210> 8422

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8422

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ttaacctact tatcaagaag ggaacttcat aagtnataag aattctaccc atataggaag 180  
gaaaaaggag acagctaata gcatagtcac agatacaaca tgagtccaag caagcatcaa 240  
ttcttcgaca tcaccttttc catttaccag agtggagact gagaaagaga gtgaggggaga 300  
aaaaagaggg aaggaagcac ccacagagga ctaatcacia tccatagtta cttttgacaa 360  
ctatagctca gggtttcata gaatagtatc atttgaccaa cacagtgtgg tgganggaga 420  
ggggtgaagg aaacacaaat nnaaggatag agtttggacn agaaaaatcc aatttcccct 480  
attnccttct aaataactctt catttgggtcc aagcttttgg gctattcagn aaatggcaan 540  
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<210> 8423

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8423

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acaatgtaaa aagaatttgc tctgcaaccc tgtggggggg ggaaataaaa gtaaccagc 180

gtccatttaa tgcagccaag tgcaattcct ttccccacct tagaaagcac caccagataa 240  
 tacagcagaa ctgatacctgc agaaagggtg ctggagggtc aggccgtggt cgtaactaac 300  
 accacattcc cattttgttt gctggataat ttttaataaa gtgaggttta catcactgat 360  
 atttaagaat ggctatatgc acaaaagaaa acacaccttt ttggttaagg ggtgaggaag 420  
 ttagagaaag catgagaaac agggagcatg tggggtgaag gccgggcaag aattgnaagg 480  
 ttgaggcncc ccagnttant tccttgctgn ggaagaccat gcctccgatc anggggtttn 540  
 atgct 545

<210> 8424

<211> 515

<212> DNA

<213> Homo sapiens

<400> 8424

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 ggttcctggt ggttcagctg aatcctagac agtttccctt ctcttcataa agctgagaag 180  
 aaaaaaaaaat tatctccatc taggcccacg ggaattttgt gcatagacag tttgaattgg 240  
 tctgaaaagt gtgactagct acctacctat tcacaatgcc tagaaaatgg gctaccagat 300  
 atggtagtgg tcaaagcccc gactttcctg tctgaggtac tgggtttgct ctaaggtaga 360  
 ccttggcaag gcccctaatt ggtcccgtcc agcaaaagtg atgctcgtgt ccctcggtg 420  
 tcaagtgaac ctgggtttgn gaatcaactt ttggatangg atcattctct tggattaccc 480  
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<210> 8425

<211> 474

<212> DNA

<213> Homo sapiens

<400> 8425

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acaacagtaa tctttatfff aggccaacat ccagacatac aagacggaga tcaccatgcg   60
gaaccagcct ggcccttaga tgtgtgtgct cgagccagga tcagccggag tctgacagcg  120
cctgcacccc aacacgggtcg gattccagga cgccagtgc aaaaccagtg catggacaag  180
cagcttccat gcgtgtgcat ttgattttta aaaacaatac atatttcagt gttaacttcc  240
cccctcacct ggcttgaaac attttcccca ttttccaggg aaacaaactc taccaaaaagg  300
tgccgcctgc aggaccccgg gccagcccc ttctggaggt ggtgctgtgt ggactcctct  360
ggggcggacc cggggccagc acagggcccc tttccaggcc gccttcaaat gcagctttgn  420
cactgccgna tctgntgntt aaaaaatcag ntttatgttt aanggcgggn aagg      474

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<210> 8426

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8426

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aaactagaat ttattggtat acaaaactcc atttcataga taaagtggca catctttgca   60
gcttctattg caccaagtat cgaagattaa aaacacaaaa aaagaaacat ttggttttga  120
aaacactgca aatagccaag tacagtactt tggtaaataa aaaataaaat ggttcagatg  180
aacacaatcc gtggaaagaa acaatctagg gggaagggaac tatggacatc agacaatggt  240
cacaattctc accatcgagc tccatagata aggcaagact tgctaagtct atggatcacg  300
accccatgga ggtcttaagt atctccagac tgaagctaga acaagtatag tgcaattaga  360
aagagagaag gccctcctc cacggataca tccaccctc tgtaaaggag actgacgcat  420
gccaacactt ntacatggga aaggggagcc cccggtgtga cgtctggctc ctggnccitt  480
cttctttcct ctgagcttaa tgctggtgga ggctttgna aaagcactgg ggaaggncca  540
aggncnttn                                     550

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<210> 8427

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8427

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agcagttcac ttcaatggct ggaaactaga cagaaagttg ggaatagtct gactattatc 60
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aataaggggc tgtggaggtt gatattatta atagtgttat gcagaaaata tgaatggcag 180
ggaggggcag agagaaaaat ccatttcttc atttaaataca aattttaaaa atcttgaacc 240
ttagaatcta aaacttacag taatttaaaa ccaaccaaaa tcacatccta atttttctga 300
gccctttctt ttcattgaaaa attacatatt ataaaacaga agtttggggg gaaaaaatct 360
atgttttacc atacaataag ttgacaaaaa ctgganaaac tagaacaac aaatccaact 420
atgtagtctg aaaacaacaa ggaaaatggc ttattcatta aaacngttta accattcntt 480
taacctggat gancngactt gctggcttta aaancccaac ttggggatta ccaaaaattn 540
ccgttnt 547

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<210> 8428

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8428

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acaatagaaa ctgttttttt atcttgactg ccagagacgc tcctttgcaa tgccttccgg 60
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gaggcattgg ggtcaagtcc agaggggctg gtctccacaa atttgaaga gtagtggggg 180
gaaacagggc tcagggggct ggtggcggca ctgtatgtta tgctgggcat gacggccatg 240
acttcggcta tcttctgttt taggtccttg atttcctgat ctttctgaag gatttgcct 300
tgggcaatct cgagctgccg ctttgcacg cccagtgcgg agaacaggtc cagcttgatt 360
atcgtctctg cacttaagct gttctccagg tgctgtgttt tgtcttgcac ggctgaaagg 420
gctgacatta acacctcagt gtccttctca ttttccttat attccgaac ttctggactt 480

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ttaagtctaa gttctctgat ttggncttct ttcaccttca tgnccatcg ggagcttttt 540  
ggcctttggg ttctaagtct t 561

<210> 8429

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8429

aggaatatag attttaatca ttgtgctgct gctattaacc agagtgcaat taatccatct 60  
tttgtggatt ttgatgccac agtgtaaag agagggtttc acacagaaac actctggggg 120  
ccttcggtga caaaagggt aggcctctgg tggggagggg gtggcaaaag gtgaagtgga 180  
attaggagag atgtggggag cagaccagg gctgggagac tgctccttcc ccatcacaca 240  
tgcccatcaa ggaccccaag aggaaggat tcttctgcc atggcctggg ctgtccaagt 300  
gagcctgact tcccttccaa ggcagctgcc tctagcttca tgtccaattc tcgtgagta 360  
gatgaggtcc agggtaggcc cacagttgac caccaaagtg tgaananata taagccaagg 420  
gagaaagaaa gtgggttttg aaccccaat cattctccat tttcatccta agtccttaa 480  
aactagttca naacttgggg aaagacngca cncagttcta tccttcggc anactgnntt 540  
tcctgcctct gggganggg 559

<210> 8430

<211> 388

<212> DNA

<213> Homo sapiens

<400> 8430

ctgtgaaaac agtgaaattt tattgatgat aactgcgga agacatccat accacaacta 60  
agcatgagcg attttagaag catagagaca aaggcacttt caccttgcat tttagatatt 120  
tgaccaaaac ttgaaatcag acatattcat agcagtacag aaaaccaatg actaattgtt 180

cacataatca gcatcctata tcctacaaaa tgtagcttc agatattaga acatttgaat 240  
gtctgaaaaa agaaacagat ctaagcatgc agttgtcctc cctgcatttt cacgagtga 300  
caggaaacac attgncacta gctattatca tttgctgngc tgtatgaaag agactnggng 360  
cacctgggng naaacagcag gcanctgg 388

<210> 8431

<211> 485

<212> DNA

<213> Homo sapiens

<400> 8431

gcaaaatgaa acaagtttat tttctccaat aacttctgta aattacaaag acaaantact 60  
aaaaactaca gcatataact tttcaatatt taaccagagt actcgtaata aatatgcatc 120  
cggaacaag ataaaaggct acacctcgtc aggcatccta caaaaatgtc tcaagtttta 180  
tatactctgc ancatttntg tgcgggggca naaggggctg ttgtgtattt tctgaagtgc 240  
tgtgacaaaa ggtcctttca ctttctttg gagccttttt gaaattgctt aactataatt 300  
aaacaactta agaaaagtaa caccaagctt taaagccatt tttgctttgc tgn cattggt 360  
ccttatccaa tacagatcaa catatcatcc agcacagcca agcacccnct gangccaanc 420  
agccttntgg gacatgggcc ctgtcananc atgccctact tttagttaaa tacttttigna 480  
agagt 485

<210> 8432

<211> 505

<212> DNA

<213> Homo sapiens

<400> 8432

aaaggaaatg cattttatcc cactgcacat tgcaaaagtc tcacgcaaaa aaagctagac 60  
tttcctctat gtatggcatc aaaaggagat aaaaaatgat tggatcaccc agattataaa 120

taaggttatt tgtttctcaa aaatccttat taaaacatta aatcagct cttttgggg 180  
 agaaatacat tcatttcagg gagacctcgg aagagtacc atccttttgc tctaccccaa 240  
 ccaggtgggg gaggggaagc cccagagggc ccaaggggtc ccctccagtt gagccaggta 300  
 gccactcaca tcctgccact gaaggaggtg gctaatacac aatttacaaa tgaaactgca 360  
 cgtccattaa attaaaccca atggaaaaca cacgtgtgac ctgtcctgtc attcacagnc 420  
 atggggtgag aggggaaccg aggaaaagg tgcccaccca nggggtcttg gaangtgggt 480  
 gggaaggtnt gtgttanggn ggnca 505

<210> 8433

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8433

aacatcttta ctttttaatg aaaaagtaga taatctatgt gaaaagtaca aactcaattg 60  
 caatttcaag aaaaaaatat gtatttatat accataaata agcaaaattg gactctgaag 120  
 ccctaatact tcaaaagcat tcctcctatt ccataaaaac ctagtattat tcagcaacag 180  
 tactactact gattttaaaa tagaaagcaa gtctatcttc acatgtagtt ctttgtcttt 240  
 aatttgtaca actcaccaag gttattttca ttcttagcac ccggggttca ccagggtgtg 300  
 atccaaagca aaccagcata ggtttttaac agaaaatctt tgccaggaac ttcatgacct 360  
 gtattttcct cacctaggaa gaagctgtcc ccactcgcat gattttgaac agtgtgttga 420  
 tgttattgct tcgaattgca tcccgacaag cagtgatcac ctggttcttt tggttttcca 480  
 accgcgac gaactgctct ttgaattgct tggattactg ntttganggt tnccaacang 540  
 ttttgggg 548

<210> 8434

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8434

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cttcattaac cctttattac aagtcacgct cttatagaag tatatgtgga cttacgtgaa 60
aaaatcaaat gtatccaaga ataaaaaaca cagcacataa agtagtatat gcattccagt 120
gttcgcgcca gagacggcgg gcgccaagt aaaagctctt ctaaacggc ctgactgggg 180
caggccgggt gcgaacggtt ccgggcctca ggcacagtgt ggggccgcct gcctcctccg 240
cgccccggcg ggcgggggca gcaccagctc ctagggcctc cgggccagcg gcggacccca 300
ggccggccca agcccgacgc caggcagaac cttttgggcg gggccgtatc tggccctccg 360
gggacggcag tgacgacacc cccagaaatg tgggcttagg gctggccaca gggtaccctc 420
agaagcccg c aagcttaatc gggctttttt aaggaagatc tcgctcagaa tcaccacac 480
aggggaagtc cgtctggatc gaaaaggcca atgctttcca aagggccnaa ggctggggtc 540
caccttttc 550
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<210> 8435

<211> 179

<212> DNA

<213> Homo sapiens

<400> 8435

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aattatacag atattttaat tgtatatata tcaggtacac ggaataaaag tcctactctc 60
tagaacatga gaagtcaata aatagaaaag atatacaaag tggaatgaac ataaaaatga 120
ctaagcatgt gatcttcaca ttcatacagn ntntcaacta atctttnnca atnaaaang 179
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<210> 8436

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8436



ctagtgaggg tttatittaa tcatcagtaa aataaacagc agacgaaaaa aagattagta 60  
 attaaaacgg agtgtttcca ttctttactc ttttaagcatt atccatgcac ttctcactga 120  
 gctcacccat ttgttgaaaa aggagacaaa gccatatccc ttagactttc ctgttgccat 180  
 gtcttttacc actcgggcat ctctgaaatc agaaacaatc agaagttag gtttgcaaac 240  
 tatcctctgg atatcaaata agaatttcac acacaactca ttctcatgtt tcaccttcat 300  
 taaagtgaac ctttaatgca aattcacctt ttattctaca aaatttatca tgtattagga 360  
 aatgaggctt aattttatag acatgcaaat caataactta agtatatatg tatatttata 420  
 ttgtacagaa attgcctctc tcttcaaaaa acttttttaa cttttaaata ttaagcatgg 480  
 tgaaagcagc tactccatga actacttanc ctttattaag gtcncaggcc attngatgaa 540  
 agggtttctt taaccnngc 559

<210> 8437

<211> 523

<212> DNA

<213> Homo sapiens

<400> 8437

atagtgtgt gcaatttaat gaacacaatt aattttacca ccattttaca taaaaggaaa 60  
 ctgaagtgca ttcttaggg tccactgta agttgagggc ttgagattcc aagaaaagtc 120  
 ttatttcaga gctcagtgtc ttgccccaaa cgcagcctca ctgctcaatc acattcttga 180  
 ggtttgattg gctgaacgca cgtggaacat caggttcatg tttccaagca agaatcatgg 240  
 gttggggaag gcaagtgttt actgtggtcc agctgaggac tgtggtgtct gaaactttgt 300  
 cacatgggag gctacaggcc cggggctggc ttggctcccg tgaaaacact gcagcgggca 360  
 gccagtccgg aaggcagcat ctggcagggc cttcaggcct tctgagtaag gaagacccca 420  
 gctttgcaaa agacatagag gcagcactgt gactggactg aatagcncac ctntntaacc 480  
 ctntttcaag gcaaangggc canaanccag gtggaaatgg ggc 523

<210> 8438

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8438

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gggggaagca caagctttat tggctgaaag ttcttctcag gaggctgggc tgctgggact   60
gcatgttcct ggatgggctc cccagggcct aagctccagg tttcctctgg ccttccgaag  120
gattttgtgg gttacgacca attgatcaaa gatgactttt tcctggcgct tgctcagctg  180
caaaagcttc atggtgtttt gcaacttctt ttcttgttca aacaattttt tatgtagttt  240
ggtgacctct gccttcattt ctccaatctg ctcacagtga agggggcact ggccatcctc  300
ggggagttag actctccaga gaagcttcag ccgcctgtag gcctcttcca ggggtcaagct  360
tggccgtgct cacactgctc acaaacttgc tcantgggtg tgggtgtgga ccctttgttc  420
ccagctcttg acttgtggaa ctgggagcct cttgggtttg aatggccatt tcancaagga  480
gccctctgtc cttgctgaac tggttgagca nggcctataa gncctaata gncaggaca  540
tggnngcatt nttntggcc                                     559

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<210> 8439

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8439

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ctgtatatat ttcaagtga tcatthaatg tgagttaggc tcagttagn gttaccataa   60
gtattaacag aagaaaaagg gaaagcaca acattttccc tctaccagaa aagggtctga  120
tgtaagataa actagcctgt tggtttaaca atagctcatt aaaaaggcca gagaatctgg  180
gagaagatgt acttgaagc actgtcctnt gagggcccat tccaaggga cagcaaaata  240
ctgaaaaaaaa ttaactggct caaaaattat attgagagat aaaaagagtt agtcacagct  300
tagaaaaaaaa ttccagaata aatgacacta gctagattag taattctgat gtttccttgt  360
catagtactc tgtgcgaaac agagggacta caaactgggtg cccctttgaa cagagtgggt  420
ttaaataata gattctccag tgcccaactg natttcaagt ataattctgg gatttgnacc  480

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tagaaatccc ganaaaaagc cccangggga aagggaaggt ttttggcctt aaaggattgg 540  
c 541

<210> 8440

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8440

aactctgaat tcttttaatt ctgaaaccag agacatgtac aacacttaca gcattcacac 60  
aacactatct tcaaaatagg ttttgaccc ctaaaaatga aaattcttag tgacaagctt 120  
tagatatgaa acttagccca gtgggtattc actttgtcac aaaaagcaac tacagacaaa 180  
tagtttttcc ctctccccga cacaaaaact gaaattacag acttttaaag cagaaaaaat 240  
ttctccaaa atgcaaatga ttaaggtcca aggaacaaat gaacagaaga tctcaattat 300  
tcaattgagc gagtgattta gtttgcata taactccttt tcttactact tctgatatac 360  
tgattctggc aatatttatc ttgnatctac tgggcaagac actgggaaca caaaggaaat 420  
tttagacaag gtccantggt atgctggtaa aggttaacaa ctagcttntt aagggaagg 480  
aggnctttac ttatagcatt ctatggggna atcctccaan tgccgcagat ttcagctngc 540  
aacaatttgg cactgngtn 559

<210> 8441

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8441

cagctttcca acccagctca tggagcttta ttcagacggg agtgacaaca tctgtcttcg 60  
ttcttgctgc ccttgaagg gcaggcccta ctgagccata ttccttagaa acccaatgcc 120  
gaaggcccat gtttgacctc ccactttatt caagtcgcct aggactaggg ctggggcctt 180

cctagaagcc ccctntcana acctgttctc acccaccac cactcccgtt gtcaggccca 240  
 gggaggaccc atgaatgaca aaaatcatgt aggatattc cctggactgg gaatcccctg 300  
 ccagcttcaa ggacatatca tctgacacag ggagaagctg acatctgtca tattcttctg 360  
 cctcacgtac acacacacac acacacacac gcatacgcac tcttangctt tcaagaagga 420  
 agtgatgtgg canaatgacc gntggcacgt ggtnaccact tcttggaag gatcccttga 480  
 aaaatgacct tgcccaaggg gccctnaanc atnggttgcc acaaattgnc ccatgggcca 540  
 actttttgac cctttttttt gg 562

<210> 8442

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8442

gagtgaata ttttattgaa aatagitaat ttaaaatata tacatcattt ttcaaaagcc 60  
 atgtgactga taaaaatata aaactttcca tacaagcacc atctcagctt catcccctcg 120  
 gcaaagtgtc tcccgaatct ttccagatgg acatttcgtt tgagtctcta gcgcccctctg 180  
 gtgaaacacc atgaaattgc ccaaaaacgt aattcaggct ctgctcagga cggaagggtga 240  
 aatagcagaa tgagcgccta tttcaatgtg acaggttgtg atgtgctgcc ttctccccga 300  
 gctcaggaga aaggcagcct ctgtgagtgc ttctctctct ttagggaaag tattcttccc 360  
 atggacactc agccaagctt attgcaaaat accttcttcc taagttttca gcatcactgc 420  
 cttctgaaaa aacaaaaacc ggcaatcaga caggataaat aatgaaagcc tccaatcatt 480  
 caggaccagg nccctactcc tggcaaaggt taaagggccg cnaaaatggt taaaccaggc 540  
 tgngtttcct 550

<210> 8443

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8443

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gcaaaataca tgtgttttgt aaaagaaatc tgcactgtgc ttggtttata ctacataatt 60
ataagtaagc aaaatagtat gacttctttt gactaatcta ctcctaaagc cttgagttgc 120
cgttcaatct cttcatctga gattgtagcc tttgaagtag aggagatgg taagcttcga 180
gcagctgatg gagctttggc catctttcca gaaatttcaa ttccaatttc atcaagaact 240
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gtatcattga ctaggggata tgggagaagg agcaaagcag ttactttcaa acaaacttca 360
ggtagactt acatattttac agctagccca actatttttg atattaccag aaggcaaact 420
cagtgancaa actaaaaaat ccttcaaaag tcagtgaagt aaatgggttaa tcctattgag 480
ccnttnaatc tggaataatg gtcatttcac cccaantatc ttatngcaac aggctactct 540
tttttaaaaa ttaatctaatt 560
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<210> 8444

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8444

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caaataaaat ataaaatgat ttattccaaa gccataccca aaacatacaa tgaaatacat 60
ccctgttaaa gacttaataa aaagagcaat ctttacattt tacaatttga agaccttctg 120
ttcccacaaa aagtctcata aaattccata aagngtcaaa tgtattttcc tgtttatata 180
aaatgtattc tctcttcaaa tatagccgtt ttattatgaa attgttctca atttctgaaa 240
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acggtgaaac ttttttcaga tcattttttc agaagtcaat gccttgctga tgcaaagcgc 360
aacatgcttt tgtcatccct ttcatctgaa atatittccc agnggttact cagtattttg 420
cncccaaaaa cagttccaat acctggccnc ttaaaaatcc ataccaggtg gaactcttct 480
tatgggattt aanggctgga atcaagnctt tggtnccagg atcactattt cttacnggtt 540
tttaataana tcccn 555
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<210> 8445

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8445

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gaaggaaagg aactttaatg agaaatcaaa acacaggga ccaaagtgc aatcatccac 60
ccccatggg ggggccatcc tgaacccac atcaaccct cagccccctt caggccccca 120
gcgcaggccc agggcctgga gcttctgcct caggtagctc ttgagctggg gcaggcctct 180
ctgggactcc agttcctcga agggtagctg tggggagagg agagggcggc aggttaccg 240
caggctggga gtgaggatgc gccacgggcc aggccagggc cactcaccgg caggagctgg 300
tagcccatca ggcctaggtg ccgctccctc agggccctcg agcccagcag caccggccg 360
tcccggcaga aatgccagcg ttcccgaac accagcacca cccttgagg ggganggacg 420
tggtcaagg cattgcnggc aangtgggca agggttncce aacctgtctc ntttacctnt 480
ggcaaggtct cagtatgcct ngaggaaactg gcctttggca agacttgtgg tttgcaggaa 540
gggtctggtc ctac 554

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<210> 8446

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8446

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cagatgtaaa atctgtgcta ttatttgaag tacagaattt agaatatatt cttaaaaata 60
caattaacac atcccact tictatgcta aaaaataaag aagactgtaa tacagagatg 120
ccttgattcc aagtatcca ctactttcc acaacaaaaa gttttgttcc agttttcata 180
aagctctaaa tcttttgag aaacactagg tcgcacagtt ctaaaagcat tttcaaaatc 240
aatgtaagct atgggtcgaa cttgatccgg tgttatggta gcaatgtcag cagtttgtaa 300

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actgcgaata ggaccaagag aagccccct gcaaagctgt gtcattgtctg ctctgaaaa 360  
cgcatcagac tgctgnacaa tctgggtcaat ttctttctca ctgnggcaac actgntcttt 420  
tggacattag attaattact atctgggtcc tggctgaagc ttntgggang ggaatntaaa 480  
gcccttttac caatcttntt cggcaggcct natnaattct tggggccgat tgggtggncc 540

<210> 8447

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8447

gagattgagt ctggctctgt cgcccaggct ggagtgcagt ggcgccatct cagctcactg 60  
caagctctgc ctcccgggtt cacgccattg ccattctccc gcctcagcct cccaagtagc 120  
tggggctaca ggcgcccgcc accacgcccga gctaattttc tgtatttttt tagtagagac 180  
agggtttcac catgttggcc aggctgggtc cgaactcctg acctcaagt atccgcccac 240  
ctaggcctcc caaagtgtg ggattacagg cgtgagtcac tgcgcccggc cccagtgact 300  
attcatgaga acaaaagaca aggcatggct gactctccag gttacagctg gagaagaggg 360  
gaaagggtgt tggttgtaca agcagctcag ggcaactggg gcttgcggcg tgcatgtgcg 420  
gncccaaaag cgtggntttg gggtacaaa tgccttcaag gnaaaggcca nantgnact 480  
tgacgggaca atcactgtgt gtggggggac ccatgtcggg tgggaggcct gganggggnt 540  
tgcctccttg gag 553

<210> 8448

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8448

gaaaaatcat tttagaagg caaagttcca aacagggtta cacaggagtc tactcagttt 60

cctggccata caggattaac gctgtgcctt acgttagagc aacaaacttg actgtccgtg 120  
 tatatatagg tgagggacaa agggtttctg cagccaagca ctgcactcta ttccgctgcc 180  
 tgggcgggcc ttgagcagga aggtccctct tgcaccacct cctccacttc agttcagctc 240  
 tctcatgtct tccaccaaga ggacatggtc tttttccaca cagatcacat gggatgggtga 300  
 atctttcttac tcatgaaaaa cagcccaagg tactgctaata ttgggacgtt ttattttattg 360  
 gaaaggttct ttcaaggga cttttctgca agaccaagca atgtatgtat ttttcttttg 420  
 naaattacaa gttacattgg gaccaaaaac acatggngac taatgnactt tgcttctagg 480  
 ccaatttaaa gaaaagtntt tnatcctcac aaatccagng aancttattt attctaaaaa 540  
 gttaaggagn 550

<210> 8449

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8449

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 gccgcacagg gaagcgggtgc ctcggggagc agcctttcct ctgatggcgg gaggggtcaa 120  
 gggatgcagg agatccacgg cagcacacgc agcctgcagg cgcagcacac aggcagagca 180  
 ctgcccagca gctggaacat gagaatgagg gccacaccac ccagctgcag cacaagccca 240  
 gcacggcgtg tcacggcacc tggcaccacc agaccagaa tggcctgtgc gagaggcgca 300  
 cgccactgac gtggctatgc tgtgatcaaa gcccgacacg ccggaagaag agccgcagac 360  
 attgtggggt gcacacactt gcaggggaac tgtggaaaac cctgatnggg tccctgagcc 420  
 cttgaagttg cccaaggac cgnacaagan gcaactgaag gccaaggtga aaacccttag 480  
 cncatgtngg cacccaactt ncttgcttca cangatgtta ggaagcccaa actttcttgg 540  
 ngngttagga caaaaaaggc cccctn 566

<210> 8450

<211> 483



<212> DNA

<213> Homo sapiens

<400> 8450

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aataataaaa tacaatttat taaaggantc atgtttacat agatacagaa catcttggat 60
ntttcaacac catagcaaca canaatnaat ttcttcatgt ntaaaagatg tgctgaaagc 120
tgcatgcctc atcantttnt attttattgg ttatggctat agttgacatn ttccatata 180
aaaacaaact gcacagcatc acatatagag tacagacatc ttaagttcat tcacaaagtt 240
aatttttcta aactgccctt caaaaattta catctttgct caattctaaa cattcaacaa 300
aattagcttn ccaagaaaca naaatgatac ccaatttctt tgcttttcta gaagtaactt 360
tccatttgnt catgtatitt gatatggtna tattccccac ccganttaaa ccctttgggt 420
aaaagagcaa cctacttttag ggtcaggcta aaaattaagn gtactanatt ttggnnngtt 480
ttt 483
```

<210> 8451

<211> 497

<212> DNA

<213> Homo sapiens

<400> 8451

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cacaaactat ggcattttat ttcagagcct ttgcttacat ttgtncata tattacataa 60
ttcttcattg tttgcagatc ctaatatata ctttatagct tttattctat aagctttttt 120
cttcaacatt ttgctgtcaa caaatcttta cagtccgtga caaatttgaa taacttgaaa 180
ccattttcaa caaaattagt tactgtaagc acacactaca agactgaaaa tgcttttctt 240
agaaaagttg aatgtaaagg attctgacac gttagcatct acaacaaaac gcattgaaat 300
tcccacgtcg tattgccagg aaacaaagaa aacatgccag ccccatccaa aaaaagtnca 360
cagaactaca attaaaacag taaaacagtc tgtcaataaa gtctggggat taacagggcc 420
cgatnttaaa tagcttggat ggacncatcc ccatttccaa aggnntccaa nggggaaaaan 480
ttaatccann gccaacc 497
```

<210> 8452

<211> 417

<212> DNA

<213> Homo sapiens

<400> 8452

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caataagtgg taacttttat taccaccata tgtaattatt gatttttcac agtttttaaat 60
acagaaacag aatgatacaa tcttcttgat tccttcccca gcacccctcc aatcctgggtg 120
tctgtagagt ataggggtgtt aagaggtttc agaaaccacc ccagcccaga cctggaggag 180
aagctgtgat gacttctctt cattagctga acctcacttt attcttgtgg ctggccctcc 240
actgaggtct gtcttgggaac tcctgatgag attcctgcct tgcccactgc ctgcagggtcc 300
tagccagcaa cccagtcctt gtgtggcatg ggcttctgc tgctggatcc ccggctccac 360
tgcacacca ccacacctcc ccagnntnta cctnctntt ccnggactgn tnactat 417
```

<210> 8453

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8453

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ggggagtagg ttttacttgc agtacagatt cttttcatta cagatcacaa aaatacaata 60
caatgtgaca agcccagttt aagaattacg tgcagtagct catattaaca caaacagctc 120
cccacgaagg ccgacaagag ctaaattccg tgtcaacagg gttcattgca ggagtagaat 180
aatccggtac aaggaacgag aacagattga aaccagaaac aaagccatgc ctgacagtca 240
atcaaggtca atctgatcat ttccatgacc aattacccat gtgaacaatt caaaatgacg 300
gtggaagagc tgagcaccct gtactcacac acgatgccca cagcttggca aaaggtacac 360
aaacacttgt ttgaaaagaa tgactgaaac gtctactttc aaagaacaat ggacactttt 420
aaagggaatg ctgacattaa cttttccaaa atggaanttt aaaatgtnag tagtactctt 480
```

ggggaagaat ttgcctggaa ccgtaacctt gatttcccag nggtttaatt aacnggggtt 540  
ttaatttaaa actnttc 557

<210> 8454

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8454

atttaatttt tccttgcaac taatggaatg ctctacaaag ttgagggtca gagggggaac 60  
aattatatag aaatttcgga gatgtatatt ctttggcctt cgaaattctg gagcaaaaac 120  
gtctacaagc attttgaaat attctgtgcc ttccggcagaa tttcgtgtgt gatcactgag 180  
gactgaatcc aaatgccttg ctgcttttaa tgtttcttct gcaagacctt cttcttttac 240  
tagttcttca aaatttacia tatcttcaag atcaggaaca aatctaattg cattgctgct 300  
acaatgaaga ccaccagatc ttatcattcg tacatagccc atagcattac caatctggct 360  
gatgagttgc ctgaattgat caaggtagct ctgtccctca ngtgttattc caagttttct 420  
gatgcctcga ttgaattttt ctgctctatc aaaanggata cttatgatca ttttggggcc 480  
ttaatttncc tggaaaaatc gaatatcntt natcaatcen ggatttgatg ggggtcatcat 540  
ncctnaaatg gctaa 555

<210> 8455

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8455

gttctgattt tgacaagggt aacttcttct ttattaaagc aaataactgg acataatctt 60  
aaaggattcc acctccatcg tctttcctaa cttagatctt cattgagaaa ttgggcaagg 120  
ttaagtttac ttttttctag tgctgcggtt ttggctcgtc ttggtagtct catcttcatt 180

tctgattctg gttctggaac ttcattgatca ctttcagagt cggcttcagc agtctgacac 240  
 ctctgtttcg tcctagctga aactgtcact tttctctgtc ctctgttagt ctttagctga 300  
 gtagactttg atgcttgggt tgcttttaca cccctgagtg gagtcatata tacttcttta 360  
 ttcttttcat cttcattttg gaaagtaagt tgtagtcaag gtggcatcct gtgctgcttc 420  
 agcttgggtca ccaaattctt tattnccttt tctaactgaa tcttgaattt cttccaaagc 480  
 tnttaagaca tgtcctaact tttacttgct tccanaatct cattcaattn ganccggagg 540  
 atct 544

<210> 8456

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8456

ggaattacag ggtcacattt taattcctga attttacagt ttagcattaa taccaccaca 60  
 tgtatacaaa tgggtgtaaaa caagtacagt ggtatttttt aatacaaaat aaacatctgt 120  
 tttatggaaa aaactatact tcatatctac acagacagct catcttttcc aaacaatagc 180  
 caaaattaaa attaaactaca aaatctccag aacaggggaa actgcttttag attaaacgat 240  
 tccaggaaaa atggaccctg aacacattac aagggtgatc taaagattgt ggcttgaatt 300  
 actgttaaag ttttttttcc ccaatgcatt aaattgtatt ttggggagat ttttctcact 360  
 tcggcatgat ctcatgatcat agatgagcaa actaacatta aaatatttac agttaacttg 420  
 ttgtcttaaa aataaaaactt aactgggtgc ctcaatttat ttttnaaatt cacttacgt 480  
 atattggaat gngcctttac tcttttttaa aaaaccgggt ttatntttcc ncccttg 537

<210> 8457

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8457

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acttttcaat tttattgtat aacttttcat taaagtgaga aagccattat attcataaga 60
caaacacagt atcaaagaag ttaaagtcac taggtaatga aataacaatc atctcaaatt 120
tgcatgcaca tgctcaataa ctttttctct cagcctaaat gccttattga cagggaag 180
ttatatgaga ggaaaacaaa gtggcaagaa aactgcactg gccctcagg acaaaaactc 240
atcagggaag gattcaaatg ttttaaagtt ctgcaaaagc aatatgaaa accaaagtcc 300
agcattgggg gcgggtaaag gtgggtttgt gaataggaag aaaggctgga agtttcagct 360
cccttacaga gtacctgga aaaagacact gattagtaac tacatgagct aaattctcct 420
ttagcatctc ttaagtatta attctctgca aatatttgga ttacaatatt tccaattgct 480
tccttgggaa aaaaatttgg ggngancnt ttcaattttc caaacngggg aanttcccaa 540
ancccttgg 550
```

<210> 8458

<211> 511

<212> DNA

<213> Homo sapiens

<400> 8458

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ccttcacga ttttatgagg aagttctgga ttaaaatcat ggtcaaccag atgttgcttt 60
tgctgggaa gatggtgtca tattctgttg cagagtcac agtgcccatg atagataact 120
ccttaaattt ttagtttctt tgtggtctca agtctttttt tcagcagctc cccatttcc 180
agaagtgagt gcagataact gctctgcacc ttcccttgca cagtctttga aaattttctc 240
tcttccggtg agagagaagt gtcttctaaa ataagttctt caagttaag tgcaattaga 300
tgtgtttcaa gccctttaat atgatccaca acattggaaa ttaaagtctg aagcccagta 360
acatagtctt ggaaactggt aaagacaggt ggcatgatga tgctggttcc tttttctcct 420
tttctttttc tggaatttta ntttgggatn ggccnaggga acttttacag taccnggatc 480
cccaanggt anccggaatt ggtntaacca a 511
```

<210> 8459

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8459

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attgtcaatc tttacaatct tattgtaaat catagtgtga gatacagctg caaatatagg 60
gaagtaagtt cacaaactgt tattttctaa agctaaagct aacattaggc cttgctatgg 120
tagaactctt cactgggttg tttcttaaaa aaaattcacg caactgacag gaggaattgt 180
ctttattctt gcattaatga taaatgtaat ctacaagatg gccttcattg attagaaaaa 240
ggaatcagac cacaaggaaa aagaaattgc tggttttcac tcaagattta tctagaaaag 300
tgtactgact actggaataa tagtttacc ctaggttgta ccacagaatg agaaattcta 360
caagattata caactctttt tctacaagat tcaactactca tattggtttt attccattnc 420
ggaattagga aattaacttt ctaaataatca ttttttttct ccaaaaaaat ccttttacca 480
gctacctgga tatggccaaa aatatcttga tgctgtaaag gtctatctcc ctagtaaaaa 540
tgaataaa 548
```

<210> 8460

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8460

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aaagctctga gcacgtgatt gctagtttaa ttcaactgtt acacccatt ctgccttgta 60
aaaataacaa aacgctccta tcaaaatgac attgtgatgt gactacaggc tttttgtttt 120
ggtacagctc taaaaaatgt tggcaccgaa tgcacttaag aaaagtgtta aggcttaata 180
caaatacaga gacgagtcatt ttctcaatgc agcttagagg gtgagaacag gatgctaggt 240
ttttaaatct tccaaataca ggcagtcacc aacgtacaga catacaggac acctcccaa 300
tgtaaacgac agccacacag cagggttgc atgcgcagga actcttcttc tcccagttag 360
cagactaagc actcttgaat cccacccac tggctcgcag agggaaagaa ggcaggacag 420
```

atgccangaa gaagtaatgt cangggcttc atacaagttg ccaagggctt ntgctgnagt 480  
catattttcc tcattcccat ctctgggttc tnccataacc canaagtccc tgnccaggggc 540  
ggaagtaaaa a 551

<210> 8461

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8461

gagtttcaaa tggagtatgt tattcacatg ttagttatca tttaacaca cacacaaaca 60  
ctgacacact ctggtttgcg tggaacaagg gtggtctaaa tatectaaaa gaaaatgaaa 120  
aattaaagta cattaatgtt tcattactgt aggcaattac gtccacatca cttacaaagc 180  
tattactgat attgtccaag gaagcagagt ggtacagagg aaggaaactt gagggtaaat 240  
tcatcagtga cataacagat ctcaacatga gaaagctgac aaaacatgaa tttttgctgt 300  
gaaatttctc ttgcaaaaat atgaagaaaa gtcaatcaat gggcagtaaa taagaagtag 360  
gtggtgaact tttgctgtca attctcctca cagtatcttg cagaaggcat caaggaaaaa 420  
ttgcttagnc ctttttttgg gaccaatttc agaacttttc caattgcaat gggcttaccc 480  
tcatctcttt aaagtaaaac cgaccatttt ggggaaaatc tttgaacgt ntcgagggca 540  
aatgggtcct gntggcctta a 561

<210> 8462

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8462

catgattcaa cactgatcag tgtttaccac tggataaatc tgagttcaca ctttccttct 60  
ctgacctaaa tgtgaagtca ggaaacacat gtgccctact tccatcctga gctcagtcac 120

caatctccca ccagcctcag gcccctccac ttctcagatc aggtcccaga cctgcccattg 180  
 aaaatgggga gcaggctgta acagatttgt ccacatgttc ctaccacctg tcccaaccca 240  
 gggtagccac ccagagacat ctggtatcat ttaacaaaca cattgaagga caactgggtct 300  
 tcagagctga agagagctcc tagggggaga agctgggaca acagtgaaat aagtagcagc 360  
 agcaacgaca gaagtgaatg gtgacaaaga ctgctgtgat gagcaggtag cctatcaggg 420  
 tgagcttcac aagccgagcg agtntcagga tctgagaacc aagggtgggt aatgnccatg 480  
 agatgtcaca cccagccgga agccagnact tgcacaccn gcttcagcaa tagtanatgc 540  
 cccggca 547

<210> 8463

<211> 533

<212> DNA

<213> Homo sapiens

<400> 8463

ggttcttccc aaccatctta cgacgttta ttactgtgat ttcagagaag aaacaggctt 60  
 acagaggtta agggcttgag accactcaac tggttttaag tggaatccag accagagggtg 120  
 ccggctccac gtctactgcc cttccacgg tgccatgctg cctcccacaa aacatccaca 180  
 gtgcccttgg ccaatgaggg gccgccatcg gaggtcacag gaagcctttt cacagtcctt 240  
 ctggggcatg agtggggagc agctcttctc cccagagctt taaagcccca tcgaggaagg 300  
 ggtgagaact gacctcctga agtgcccag tgtgtgtgta ccgggagagt ggactcaatt 360  
 tttatttttg aaacctcatg cacagagttc cttatatccc ccaggtccca caagaagtac 420  
 caggtgccat ttaanaaccc cttntnaacc tntggccanc cctgnaagca acacgggcct 480  
 ttacaggctg gcttnttctt ttggcacaca agcctttcgt tccatggaga atc 533

<210> 8464

<211> 396

<212> DNA

<213> Homo sapiens



<400> 8464

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acttgggttg cctttatitta acattctaaa gaatgattat taaaagtcaa ggaccatatt 60
tagatctttc ctaacaaaga agaaataatg ctgtttccat aagtaagcca aaaattttct 120
ctggttaatc aggtaactcc caagctagta agaacttctt ctgggactct ttatccactt 180
ttctacagga aacagaacta ctgcaggcaa gggtagcttt atcttattgc ataagtatgc 240
aaatattgcc taaacaagat cagaaaactc actaaatgag tagaatgggtg agatgagaac 300
atccttagat acattaagag ctaaacagga tgcaaatacag aaaacaattt cacttaaggn 360
ttgcttggca tctttnacat tagccttnn tgnanc 396
```

<210> 8465

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8465

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caggatatga atacagtitta ttacagtttt cagactccca ttacgacaca tatctaaagc 60
tgaacattgc aaactgacct tactagcagc aattctccct agacaggaag ggtttcagtt 120
aatttagcaa ttaggagtaa agacaaactt acaagtcatt gtttttcttg tagcagctgg 180
tatatgagca gtgaaactat agatacgtag agtcattcag gtttagcctt gtctaaaaaa 240
acattaataa gttatgggtgc agaggagtat cccaggggtt gccaaagaga aggctgatgt 300
ctttagatgt cagtatgaaa caagcaaatac actttcaaga catggcttac tatttgcttt 360
actgtcagga caacagaaaa agaagtgggc agctacccta gattctagct cacacataat 420
tcagccngat aatcatcatt taaataatac cccttggaat ttttcagact tttcacaggg 480
tcttaaaacn ccaccatcng acntaacatc cacattgttc caaaggacta aaatcaaaag 540
catttgca 548
```

<210> 8466

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8466

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agaaaaggtg gaaatggcct tttatttaaa tatgaggaaa aaattagaat taagtacagt   60
aagattatatt ttaaaaaagc agacaagtta gaacaaacat tttattatta aaataaactt  120
ttgtataaaa gcattacaga tcaaaagctg tatttactat tatcgattca aggtccaatt  180
atgcatcaaa cattgaatgg cacagcaatg gtttacatat gcaagtaa at tggacataca  240
aacacttaga ttccacctct accaaatacc ttgattaatg caaagaggag ggggaatact  300
gacacaggaa acctgcccag aaactagact ggcagagatg tcaggttaac aaactgctaa  360
aagttacatc ttcaaaaagg cacttatcat tgntataaaa gtgcttaaaa tctaaacttg  420
aaccttgngc ctggnttata aattaccaga aactgcaagn acccagacta gttttaatat  480
caagttccat ccaaaatggc cagaatttat tgcatacctt catgtgacng gaataacttg  540
g                                                                                   541

```

<210> 8467

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8467

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gctagtttag tgtttgcatt tattttaaaa atacacaaaa tagaaatttt tacatcaaag   60
tgtgataacc tcacttacac attgttccat acttacctgg ttttgttgc atctttctgc  120
aaacattaaa aggagatgga tttgattctg atttttttgc tatggttcat gtaaacagtt  180
gagactgcta cataaagtag gttgttgtca aagggtgaagt ggccacagaa tccaagaat  240
agaataattc aatttggttt aatgaaattg gtggaggtct tagcagatag ataatccaag  300
actaaatatt gtcttctagg cattttaaaa attaagaact ttgaggtttt cttcatgttg  360
taaacataac ttagaccttg gtggcattaa gtttaccaaa gaaaatatta aacctgatt  420
ttatcatcct ggcccatgtc agtatcacac tctttattat gagaatgaaa nccaantaat  480

```

aagccaaatc catcaggaat tcaaattggnc tggcaaagaa ggtcccactg g 531

<210> 8468

<211> 459

<212> DNA

<213> Homo sapiens

<400> 8468

gctcataaac aatattatatt tttttctcag tatgtgccct tgaagattcc aaaatgttgg 60  
 agtttctgat tctcctggga tcaaaggtaa aagcattgta tggaaacact caaccttggc 120  
 tcattaccct cctgaggagc taagtctgga ggcctcagag agagggagct gacattcaca 180  
 acttattcca agatgggtaa cacagtgaac aaagaattag taaaacatag actcagtctg 240  
 tagagggctt caaatataca tattctatat atataaacct gttatatagg atttcaactt 300  
 attggtttcc ttgtgatttg taattaacgt acaaattata aagatgttgc aacttgctga 360  
 ttcccccttc tttagccccc ctcccttccc aacentaat accattccaa anggcangng 420  
 gatcctaana atttttggtg gtgnaaatat ttgtgtttt 459

<210> 8469

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8469

cacattaaaa aaataggttt aatgcaggtg ggtcatggca tgacgaattt cacaggcacc 60  
 ggggacagca ggcggccagg tgctcanagg gcaccaaggt gccacaactc cctgcagcgt 120  
 tgacaccgca cgagcggcac caccagcccc ctcccgccctc ccgtcccacc ttcaccctna 180  
 gccaanaggc ttgggtgact ctgagtaata cgtaaataaa aaacaaagct tntttgagga 240  
 aacagcatga cttagtcaa aagattctnt gcagcaagaa atgaggccca cgcagggaag 300  
 ctcccgcccta cctgcccagg gcgtggacgc agcccgggct catcagaggt catccacaga 360

agctgccgat naattannag agccccggtt acggccagaa aatTTTTgct ttctctacct 420  
gatttaaggg ttttcaaaaa gtttctcttc cattgggaca caaatggtnC tnntggnttc 480  
tggggccact tgttccgcct gacaggggta angtcncag gtccaacCAT tgcccanaag 540  
tgtgg 545

<210> 8470

<211> 517

<212> DNA

<213> Homo sapiens

<400> 8470

gaactttgac gagcattttt tattgaacag ttttattctg ttttagaata aaaactttgc 60  
tttaatatgt taaggggtac tgcaggtatg ccatgctgcc agttattgct ggggcacaaa 120  
acgccccagt cagtgattcg gagggctggg aaaacgcata aactcataat ttcagagcaa 180  
gtagaactag tatttacagt tttctttctt gaaattggcc cgggacatct ccaacagtct 240  
acacatgtat tgccatggta cttgctctga tgctctgaat gcctcggaac tgtgttcaat 300  
atcatgattt gtgggtcctc taaaagggtt tgttgttaac atgcaagcaa acagcactga 360  
acaatattgt ctaaactatg gctgccaagt actggatctt cataatgaaa ccaaattacc 420  
aaacactggc ttgtagagct atncaaagat ttaaatgaaa ataaaaaatg tcaacagnct 480  
taaatatcca attctctaca gngcagttct atttttt 517

<210> 8471

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8471

gggcccgtac attatgaaga cattcgggaa aatgaggccc ggcaacttgg tgttgggtat 60  
tttgcctttg cccgagacaa agagttgaga aacaagcaga tgaaaacctt agagatgctg 120

cgtgaacaga caacagatca gagaacaaaa cgagaaaaca taaaggaaaa gcgaaaggct 180  
 atcttagggg caagacttgc caaacttcga caaaaaaaga tgaaaaaatc aaaagaaggt 240  
 ggaacagaag aagaaaatag agatggagat gttattgggc ctttgccacc ggagccagag 300  
 gctgtgccaa cccacgtcc tgctgccag agtagcaaag tagaagtcac tgtccaggag 360  
 aggaaggaca ccaagcctgg agtgccacac atccgggagt gggacccgcg ggaaaagaat 420  
 tttccttttg gatactgggc gaaaaagcag tcagatctcc gggcttaaaa gaaaatcctt 480  
 gagttttgcc ccgccgtcag aatacnttgg ngggtcanaa gaanactggg ttttccaacc 540  
 agccaggctt ggnccaaacc tg 562

<210> 8472

<211> 513

<212> DNA

<213> Homo sapiens

<400> 8472

gaatctttaa aaattctatt tgagaccag cacacaagaa tacgatagat gtcctcaa 60  
 gggggcttgg ctcacaggtg gaaggacact aaattgggtc catctgattt cttgaggcaa 120  
 ggggtgaacc tggttgcac aaatcacacc tgtccaaagc aaccacgagt tctactattt 180  
 tgcagccctt gctgctgggc gacgacgacg acctctctgc ctcttcttc caccactaca 240  
 tcgcctcctg gggcagcttc tccctactcc accctgtata cctttcccag aatacagaac 300  
 ctcaggccaa agagagatgc cagccccatt aatcacctct actgtacccc aatcatatta 360  
 cgaaaagtca gaccaggaa aacaaggact taaaaagcca cgcttatagg gcaaaattcc 420  
 gnttgctggc ttcaagccct tatttcccgc ttaaatngaa nggctctgga ttatagcccg 480  
 cantaaattt annccctcct aaatatnggt tgt 513

<210> 8473

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8473

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ggttttaaga agtaccaatt taataatgaa tacttagaaa tatggtacac agataccata   60
gtaatataaa atgcatacaa ttttaaatta ttttcttata aactctctac atgaatggct  120
ggcggcttcc aacagataaa cttttggaca aaggtacaag atatttttgg gcattcattt  180
taaataccat ctagttatcc aattaggagg tttctaaaaa aataaatatg acaaatatat  240
ggattttctga agtataaaact gacatacaaa tctatatatt ttcttaatac ttttcattaa  300
agcatcttta aagcattctg taacatgaag ttgagagttc aaattagatg taatgaaaag  360
gcatgagggtt ttattagaac tgtgtaattc acatatcaaa atttttaccn taaaagttaa  420
ccaaccccaa attggaaagc naaatacggg atttttactct tccaggtacc aatttcagaa  480
aaactactcc tgggaaaaat taatatccc aattctgnaa ggtaatagga aacnttnt   538

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<210> 8474

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8474

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gtattatgct caaactaagg cattttatta gctggcttta caacttaa ataatcttgg   60
ctttcaaagg aacagcttcc actaatcca aattaaactt tcacaagttt acttgtttgg  120
ggagggacat tcttatggtc accacaaaat acttttatta taaccttccc caaatctttt  180
cttagcatta actggaaaaa aaaaaaaaaa aaaagcttag gtcaaatatc aactgcctga  240
aaaacccaat taagttactt ttccttaaaa catgtgcagt ataattgaat caaaagagaa  300
aactgcaaat acattngtct ttggccagaa gtagagttca tttcatgatg attcagtatc  360
ttcagatact atttttgaca ctggccataa atcttagcaa agtaaatcca tttattaacg  420
tttcaaaggc aaagttgggt ttaacattag actttctttg gcaactggca acttaaaaaa  480
tttgcanang ngattattna aacctntttg gagctnaatt tagcttttaa   530

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<210> 8475

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8475

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aacaaatcca aagtttaatt attaaggatt acaaataatt ttagcagtgt agttaggcaa 60
tccaagcctg gacttccact tcattcctac taaactactt gcagagctga ggaggcagga 120
gactagagta cagagagcat tttagtttta tcacaaaggt ctagaactgt ctctacagtc 180
acaggaagaa acaggtatgg caccgtggcc agaagggggt aggtattcac agagagtggg 240
tatcaaggtg tcaaactttg tcttctgata gttttccaga gattcctgta gagaaggag 300
caggagagc ctactatccg aaaccattcc ctgaaccctc tgaattctga agcatgtgga 360
tttctcagtc ttgttctacc catccccctt cccagctttc tgctccttc cactcacctt 420
tccttcccc tggccatttt ctccccatc agagtctaaa accaaagtcc cctatggtaa 480
tgacggactg acagagaccg gaggaccact gtaggaggga accngaata aacttct 537
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<210> 8476

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8476

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cttcaaattg cttttattat acagttgtaa tggtattaat tataaacatc aagtctattt 60
tcacacaaat cgtcacgagt ncacactgat aaagacatgc gctgggtaag agtcattatt 120
ggtacataaa catactggga tttgggcata aaaacacagt atcaattaat agcttttagca 180
gtctcaaaat agacttcaac gacattcata tatatttctt aatttaaatt gtgttagaaa 240
cattgcatct actttgagga acaaattctg taacagaaga gggaagacag gtaggcaaga 300
aggcaggaga tttttagttg tatactaagg tttagttttg gcacattgaa agtatcattt 360
ttcctattag atttctgaat ttgtgaacaa acattaacag ttgctgttct ttaatatgac 420
ctcattcata ctatatttgt gggaaaatac aactttagtt ttttctggtt acttatttnt 480
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ttaattttcc actattgntc antggaagga cttacccaat antttttaga agaaagaa 538

<210> 8477

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8477

gttcttcaat ttgtttctga tctacacatt caaaagatga ttcaaactcc tcattatcct 60  
 taaaagctag cttgtccaca tctgaaaatt cacttttgtc ttgaagttca gtttgtcttc 120  
 gataaagacc cactttctgc tccggagggc tggagacagg agggatggag aggctgtgcc 180  
 tagactcagt ggggtgatgt aggggcattc tgtcaggaca aggactgggg gaagcaatgt 240  
 gtgatctgcc cagaccttcc agatacattt cactttcgag gcttcttttt gcttttggaa 300  
 ggggtgtgga agagaggcgt ctggaggaag tgcccccgcg gagcctcgag gctgcactgc 360  
 ctgtcagtgc ttccacgacg tcattccttt cttcaagtgt gccacttga ggctgctcaa 420  
 agacaactct gncctcttca aaaatatggc ttttccgggn actggaaata atggtttttg 480  
 aangntttcc accagggccn aaaatggggg ggctctttgc tgctannggg cctttggg 538

<210> 8478

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8478

cttttttttt tctcattaac aaagcagtca attcccttta tttttaaaat tttatgtaca 60  
 catatgaatg atctgtataa tgtacattca atatagaaag ctttatatat ttgatagtgt 120  
 atagaacatt tcacaattac actcatcttt tacataacat cttgacatcc atttttaaat 180  
 tttttgcac aagctccttt tcattcaatt tggtaaagcc agttatacat actaatgtgt 240  
 actgtgagct ttcagaaggt taatgattga ggatgccagt gaagggtgca gggacaaaac 300



ctaatagtct tggatggtgg ggggaggatg gccacgcaga cttgatgcag gagagggaaa 360  
tattctttcc tggggaaaag tgacttagcc caatitttgg tgactgnagc tcaaccctac 420  
agtcagtcta gttcaaaaaa aaaatttcca aaactaggaa gaaaggtttg gctttttgat 480  
cacagtttgn aacngattta anggaccaat gngncttcat cccccngaaa aaaaattntg 540  
gg 542

<210> 8479

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8479

gtcctgctgt tttcttaaaa actttttttt gataccaata tcttcttatg gtcagagtca 60  
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ttactacaa atgtaccaag aaaagagaag gccagcctcg acctcgctgt ggcacatgag 180  
ttatccttca acagggtgtag gcattttgag tcagagaggc ctggacaatg aagagacagc 240  
acctcaggca gccttgccag gagccactgg gtttcatcct ggctgaccc agaaaaatct 300  
tatggaagag aacaagaggc ccaagagctc tctgatctgc tgtcaaccag ctgcagccgg 360  
gagactgcca aagcgcttgc agtgactagg cagcggccct acagaagccc gctgggaagg 420  
ggattaccag cctgatccct tggctttaga agccngaaat ggctcaactt tacaacagca 480  
nggnctgnca gggagggggc catgaccctg gaaagggttt ttccccttgt gggg 534

<210> 8480

<211> 487

<212> DNA

<213> Homo sapiens

<400> 8480

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aatgatggtt ttcaaaatac agtaagtctt catttaacat tgtaataga acaatgaaaa 120  
 ctccaacttt tacgtgaaac agtgtatagc cagtcctcaa ataactgcct tttgttcaac 180  
 atcctttcct tgtaacaact gatgagaaaa agtatggtt tgttatacat catttctctt 240  
 gaagtacaag ttttcaagaa cctattgaca aggttaagtg tgggcttaca gtttaccaat 300  
 cttagcctca gattgggcta gggcaggat gacaaaccag gctcttgcat gggctcttaa 360  
 atggactggg caataaatga agactttggc ctgtaaattc ctaaataagct tctttgcttt 420  
 tgncccttan gaatgcacag nctcattgnt acangccatc ttatggtcag tagaatcnna 480  
 cccgaat 487

<210> 8481

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8481

aaattaacca gatctgtctt ttaatagtta ccagaattta gatgttaatt ccccagagga 60  
 aaaatgtcca tggcacagtt tttctggaaa agttcacatg tagacagtga agcttctgaa 120  
 gttaggcgctc aaattagtag tgacaatctt ttttttaatc ttgaaagtcc ctagttttta 180  
 agaaagtaga atccatctgg ggcatgtctg catcacaggg tatcactcaa gagtcatcat 240  
 caggccaaaa agactctgaa gggaaccagg agggtttggc ccttgctgtg gaaagatgct 300  
 actgaaagta taagagaaca ccctaattgca cgcgtcaggc acgaaaccg taccatgccc 360  
 cgctaagaca tgggaccaga gaacacgtna acgtcaaggc cggtncanga aaaccattcc 420  
 caagaccacn gaagctaccc gaggtcgaca ctgncatgaa aagtgttgct gaaccgcagt 480  
 tnccagggct ttactggccg aacatnccta aggcacgggtt gggcttgtn 530

<210> 8482

<211> 497

<212> DNA

<213> Homo sapiens

<400> 8482

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cctttcacia aatggatitt tattgtggtc ataatgtgt tctcagtgcc acagaaaatt 60
gctatgtagg gacaaaaaat ttttgatgg ctctgtaaag aaacatggta ggttttcaga 120
aatgagttgt gcaggaatgt ggtaaatgaa aagcagaaag ggtaaggga agagaaagga 180
agccaaggag tgtggtatgt acatcaaatg attacttttt aagcccctct aggctctgat 240
aaccctttcc ccaagtcaga tccaacaaa attcatcagt aactgaagtg attgtgctaa 300
cagatacata aagactaccg gagaaaagtg ggttgagatg ggctcagact tattgttagg 360
acaactctgg gagtcttgtg tctgtgccaa ccacgtatcc gtgggctacc tggagatgaa 420
gttctaacia cccagcacag aacccaaagc tgnntttcna cacctttggt tantngggga 480
aanctttatn ggggcca 497
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<210> 8483

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8483

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gaaaagtcac cacaatcagt ttaattaagt gcacagaata gcaatcaatc aatcagtcac 60
gtcaataaaa ataaaacaat tatttttaca tcaagtgtgc tttatttcct ccacaggtat 120
tctgttaaat aaagcaccat ttatatactg ccaggccaca gctaaagagg attctttaca 180
gaatcaaatt tcttgtggtt gtcccgata caagtaaact taattttgat aataagaacc 240
acagcgatcg gaggcaatct gcctctataa ggtacaaaac tggcacagag gacaccatat 300
catacacagt aaaaatgctg taagtittaaa ttacattgta cagggttagg caaccctgtt 360
cttcccagac agccatatta aatgaaagcc actaaagtga actcttaatt acataaaaca 420
tatccattat ctggatgccc nttaaaggaag ttacttgaa atgccagggt tttcatctgg 480
aggtttttgc ttgccccaaa nttaacctt taaanctttt ntggcc 526
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<210> 8484

<211> 493

<212> DNA

<213> Homo sapiens

<400> 8484

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aaaagaaaaa tgttaagact ttattcaaga tgtgtatcag gcattataac aaaacagcag   60
aacttcaacc tttggaatac tgtaatttta catccctttg atgcacagtc cagtatacta  120
ttttattaca gatcattcta tagggactac agacatgaac tagaggaaat gtgcacagtc  180
acaatccaga atatcagctc tgggagtgtg cactgtttgt tagaggatga agcacatcct  240
ttgccatttc aaatactgtg ccagggtggag gactaggaag gctcaaagat ggatcatggtt  300
gacaagcact cttatcaca acacatggat agcttatcac ggagaacaca tttcaaaggc  360
cagcaaagtg agcaagctat tcacacaaag ccaggaggga ttatgactaa actctccagt  420
ttataagcac aagtnacat ntcacctctn agaacangng ctcaatggca ttacttaaag  480
gtnttgcntg gac                                                         493

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<210> 8485

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8485

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ctgtttatga cactttattg atgctggggg ggtggggagg agacctggag aaatatgtgg   60
gggcaagagt cccaggtgg ggacaggga agtggtgaag cctggccact actgggcagg  120
gaagacagag ttgccactgt atgcacagg gatgagcagc tgccgtact ccaggggcag  180
gtgccgctcc actagcacgt gcagtgaac ttggtcagt accaggccct gccgccgat  240
cagcagctcc aggtcctctg gcttcacagt cttgcggcca gcatgagcag caaatacctc  300
cagatcatca caaagatgct ggaaatattt atctaggcac ttctccacca tctcaagagc  360
cttcctctcc atgggcatct tggcatagaa gctaaagagt ttcacatagt gggctcaagt  420
ccaaccttgt ggggatcttt gccngggcct ggggcccggt gtcccgggcc taaggggatn  480

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ctgaccacaa aaggttttga agctntgaaa ataaaattga gcaccagccc ttgggcttgg 540  
ttaanaaact n 551

<210> 8486

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8486

attttagtag agagcgggtt tcaccgtgtt gcccaggctg gtgttgaact ctggagctca 60  
ggcggtcgc tcgcctcggc ctcccaaagt gctaaggta caggcttgag ccaccgcgcc 120  
cggcctcaaa acacttttct ccacttattg gccaaagacac attattactc cctgtttgca 180  
agtgagaaaa cagaggcaca gagaggtag tgtttggaca tggtcacaca gccagttaat 240  
catatgacca cagaggctgg atctcctgag ttttaaactg agctgtcatt cagtccatag 300  
ccatttattg tctttcctcc cagccacggc gcctttcctg tgctcgctca tgagcttctg 360  
tgttatgaag aatgaagcat caaagggtag tgtatggta actctggcgt cttcccactt 420  
cgggtggctta ttaattctca agggcagnct cataggagag gatattcagg catgccagcn 480  
ggtattgggt gnetactggg gtcacttctg gncctttaca ccagcctntg gggaaaagt 540  
cttaccan 549

<210> 8487

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8487

aagtggccac tattttatta ataatgcaca taacatatgc ttatcattaa ctcttaaaaa 60  
gattattatt taactataca agaactacca tacaacattt caacatacaa gttcctatac 120  
ttcttaagat acacaataat attttgaaag attggaaatg tttcccaagg actttcctat 180

cacaaatccc cccagtaaa aattatagga actgtggaat atggctgcta atattctgag 240  
 atgaatttag aaagtataag tattgagaga tggactttat tatagcacct gtagaagaac 300  
 caaattcagg catttatccc atattttctg aaatatattac aaagctctta taacattttc 360  
 aaataacatt taattttaçta agttctatatt catggcaaata aagaatcaga aaatttgagg 420  
 atgctatattt ttaagttttt ccaatacagc ttaagctttt gggataaagc tggtttacta 480  
 aaaaggatcc ggtctcaatt gngngngctc ggtctctttg gcaatttaga gccctgggta 540  
 agcacatgca 550

<210> 8488

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8488

ctagaccact gagaaaatct ttattttacaa taaattttcaa taaaatttgc ataaatatat 60  
 tccaatgta caattttcac ctctgatttc ttcatatcat ttaaaaagtt agtctgtcct 120  
 gttctcctta ttcctttcag acaccagtgt ggcgctgaca ttggcaggtg gaggggagct 180  
 gccagggagc tgggggggtgg ctgagggctc aggctgcttg gggtggacct ctctctgggc 240  
 cgccaggctt tcagctccat ccctgccctc cagtttctc tccatggctg ccaccaggat 300  
 cttgagccac gtgttctcgg taaggagggtt ttctgaggca tcggccagct cctgcagctt 360  
 gcgggccagc tcctgcagct cacgtggtct tctgctcata gagggcctgc actgctcact 420  
 gtgtgcgtgg agcaagctgt gctggtcttc cangggcccc tgctgctgnc gaaccggggc 480  
 tcaanttttc ggcaactggan aacttgggat tcanctgnac ttgggcncct ggaggtggtt 540

<210> 8489

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8489

gacagtccca cacaaatcaa tttttaataa tttcaacttg ccaccagctc caaatccagc 60  
 tgccttgggg atttatcacc agggaaaaca ctaaagtccc caggctgagc tatccatcca 120  
 gtgatcagat gaccagcct gtgatctctt aagaacctac atctacacat ggcagcctgt 180  
 tagtggcttc tctggaacta gtgcatagct gctcaatggt agagccagaa ctctggttcc 240  
 cagggagggc gagtatccca aagagatttg aggttaaagt gatggcagtc caggtgggtcc 300  
 cagacatgct ctactgctg aattcctgca ctactccta gaatatacca gtgctgtttg 360  
 ctcccgccat cctgagggct ttaaaaagng ctttaaaaag ggaggatctc gaagcancaa 420  
 gctttttcaa angcactgtt gggaaagcct atagtgggtc catggaggct nttccaaggg 480  
 aggaancnca agccaacttc ccataagtca ggggnatttg cctggggccc cnccaat 537

<210> 8490

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8490

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 atatcccat acagtttggg ttccacagct taaaagggg cagtgggtt cccgcagtta 120  
 catactgtac ccaactttct atagaaagat aaaacatttt ccaacctgc ttttgagtat 180  
 ttcctaaaaa atgctttaaa gtttccttac aataaatggc aagtaaaaca aagtaaggct 240  
 ttttttttct ccttttcccc tttttatgta ctgcatgttc naggaataag gaaggaagac 300  
 tagttccatc agagtactag taatcctagt accctgggga ttactgctgg atcctcccag 360  
 gtatacccct attattgagg ccctgatgca ccctgcact gaggaacctg agaagggtaa 420  
 gtactaaaca ggctgcatag ccacgtngga ctgttacaag cacaagggtg gactgggaag 480  
 tcnccaagtc ttctngnggt taccaggagt accaanggac tnnggcttaa ccct 534

<210> 8491

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8491

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gccttgaaat gttttaata gaattggtct agtaatcatt caggatttcg gtgatgggcc 60
ctccctgtcc ggacactgcc aaccacagc tggaggggca ctaaggcac gtcattttgt 120
gattagaatt acacaaaatt tgattaatat tatagctgca aaattaacat acacaatttt 180
cactcataat ttaaaatatt ttgatgaaat tctttgcttt cacaatagaa gatcaatggt 240
acacagtata ttgaactctg taacaaaatt atttttgaga aaatacagaa gtgagaaata 300
gtgatttcct caatttggtt atagtctatc acaaagtagg ccaaagttca gtattaaata 360
gatatcctaa taaaagtttt tacaagtttt nctaaggaaa tccattcata agactgnnta 420
ccttctggtt gacagcagtg acangaaccg tgggggatcc ccctnatgga cgagtncccta 480
gccttangcc ctggnaccca aggccccggg ggcgctccgt nacctggtag 530
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<210> 8492

<211> 454

<212> DNA

<213> Homo sapiens

<400> 8492

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gggcatatth atgcagttgt ttttatttat ccaactgnaa agactgcagc aatthttttg 60
atgagtaatg ccttagatta acactaatta tattgctata aatttggttc aggatcagaa 120
tagggttcag gaaagggaga gaacaaaaaa aaaagtctcc aaacattaaa acagaaaaat 180
gctthttttt thttthtttt ganactgagt ctgctctgt ctcccaggct ggagtgcagt 240
ggcncaatct cagctcactg naggctccgc ctctgggtt caagcgattn tcctgcctna 300
gcctcctgag tagctgagat tcaggcacac gccaccatgc tcagctaact tttggatttt 360
tagtacagac agggtttcac catgttgccc aggctggnet tgaactcctg acctngngat 420
ccccccgnet aagcctncca aangctnggg attc 454
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<210> 8493

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8493

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agtttttagc ttctttattc atttgaacac ttcaatatcc tgtcttcttc aatgattccc 60
ccttgcccgt attttcagct ggaacagttt ctcatatttc ctatttctga acactttcag 120
gggcttcctt cagtgaagcc caacacacaa aacgtccctt tcagcaaaat ctgagcgggtg 180
gtgctaaggg actaacacag actttaaggt cacaaaacca ttgttttaac atttttctct 240
gtttcttttc tgataatgat gacagttctg tctctattat atttgcgtga acttactagg 300
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tacgaagatg tgggatttcc tctaggaaaa ggtgtgtatc caggtaattt actaagccag 420
aagctgctgn gattctatgg cagccttacc ttcttatgac acgtcattta ctaagaattn 480
ggggatctgg atgatggcca anagtggctg gactnaaagc ctggccccc anaggggggng 540
gg 542

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<210> 8494

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8494

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aaaatattta tatggatcaa ctttattgaa agtgaataaa cagagataat gnggcaaaaa 60
gaaattttcc caatattaaa cccttgatga tactttttaa ttactataa ggaaaagaat 120
ccaccagtag taggtagcta cttatttttg ctgagtgctc tctgcttttc tgcattgctc 180
acaatctttt ctccacata aagccccctc cgctttcgta ctgcgttcat gtacttccgg 240
gcttggttct cagagtcagc ctctctccca aagtgaagt attcctcctc agtagttggc 300
accagaagg ggtcactggg aatgatctcc caatggctga atactagttg tgggctggcc 360

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aggccacttg ncctcttctg atttcatcag caaaaccaa gctttcagca acaggcagca 420  
cagcttgatg atgaacatgt ctggcccttc tttcatttct tcttgaagac cggacctnt 480  
cttntttgac aagacagctt agactcgacc gagaacatta cngtgggcat gatgtct 537

<210> 8495

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8495

atgtgttcaa aaaaatgttt tttttattga attgaatggg agctaaagta ggataaagtg 60  
gagccaaatt ataaatagga atataggtag gagttcattc attcagtaaa tattttattga 120  
atgcttattg tgtccaggcc ctgttctcag ctcttagaat acatccatga acaaaccaga 180  
taaaaacttc tgcccttgcg cagcttatac tctagatcgt aagggatggg attagcaata 240  
aatttacata aattcaacca tacctactgg aaaaagacac atgcatggaa attattaatg 300  
ctataagaat ctcttgatat gcagtttgta tttttgnact taatataagc ataatatatt 360  
catactaca tatcactccc aggatttaa actttaagac tacnaagaga aattttattgg 420  
taatctaagg agattttcaa ggccatctga gcatgctcaa ttttggccct angcacggct 480  
tttaaacct aacccccctta caggtgngga ticcctgnnc caaatggaaa ctttg 535

<210> 8496

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8496

ctctctagta atgactttat tcatgaatct ataatggaat tcaaaatagc aaagaacatg 60  
aaaatgttca gattaatatt tattaaccaa atgcatcaga aaatacatct attttcacat 120  
atcaaaagtg cctaaaatgc atgtgagaat ataaatattc tccactttgt ggaacttcaa 180

gataatgaaa aattgcttaa tacactttgc cacaaaaact cattacactg caaatacaga 240  
 agaaataaaa taactcatta cattgcagat caaaagaaat caaatgtaac tggcaaaaata 300  
 accatttcat ggctaattctt ttggtaaagt gctatittca cactgaaaaa aagaaattag 360  
 aaaagattaa aaatttttaa ttctgaacca tcattctgaa agtctgaagc gttttcttta 420  
 gtattcacta tggatcatcac attcatgngg tcccaccatg agacttaaca ctttctcaaa 480  
 atcttaaaaa atctttcatt cncggattat tttcggggag gttaaaaatt ttncctcatn 540  
 gtn 543

<210> 8497

<211> 522

<212> DNA

<213> Homo sapiens

<400> 8497

aaagacaggt tctcactctg ttgtcctggc tgcagtgcac tggctattca taggcaagat 60  
 cccattactg atcagcctgg gagttttggc ctgctccatt tccaacctgg gctgggttca 120  
 cccgtcctga tgcaagtttg tggtttcctg cttcagggac atcaccatat tgatgccaaa 180  
 cttacaccca actggcatag tgtaccacag ccanaaactc ctgggctcta gggatcctcc 240  
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 atttttaatc ttagaaaata aattgngtat agaaaggaat agttagcaca tttatgtcta 360  
 aagaggaata aaaaaggga actgggggtt acacaaaatg cattgnagtg actgattttg 420  
 aacancctat caggtnatt caaccaaag gcncaggaga tgcathtagt actnaacca 480  
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<210> 8498

<211> 533

<212> DNA

<213> Homo sapiens

<400> 8498

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atggcccctc tggttaaggg aagcttctct tcctaccttg tccctgtcca aaatcaaagt 180
gctgaggcag ctgaaggagc ctccgcaatt acttctggat ataatgtagc aggaggctgg 240
aataacatca gaaacacccc acccccaccc cagagcacia ccaagatacc gactttcttg 300
ccctggccct aatcctaacc tctcctcctt tgcaagctga caaagcaagg atttgtatgt 360
ctcgagaggc atcagcatga cccctgaaat tcagatgcac ggcggagggg ttcccatccc 420
attccagctt tccagccttg ggctgattgn gaaatgagcc aaaaccaacc attttccaaa 480
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<210> 8499

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8499

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cagattccaa aagagtaaatt ttactattg gagtacagtt agattgtaat cctcttgaaa   60
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gtccattgat ttgttcattc attaatcaa caacatttac taagtttctc catgtacact 180
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tgaagcatgt ctctgtctaa gtttatataa tcagtacttc ataattcaga aactttgcct 480
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<210> 8500

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8500

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tgggactaca ggcggttgac accacgcacg gctgactttt cttgttttgt agagacaggg 180
tttcacccat gttgcccagg ctggtcttga actcctagcc tcaagtgatc ctcccacctt 240
ggcctcctaa agtgctggga ttgcaggcgt gagccgctgc gcccagcctg tttattttca 300
cgctcacact gccccaggct ggccaccgta tgctccttcc catccccccg tgttatttca 360
acaagtctcc tcatcccagc aattcttcac tctctagctc atctgatacc ttctctggcc 420
tggccctggt tccttttggg tacagaatgg tatcagggcc aaaaccctga gtgcaccggt 480
caatngttc aggnccctnaa aacttggnaa catttgggca caagccctta naaaaagncc 540
cct 543
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<210> 8501

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8501

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cagataggca cacataattt agattagaaa tgaaaatggg ctttaagccc tataagtatt 60
gttttccaag aaaataagtt ttgaaagtgc aaaatgacaa ctcaaaaagg tcccctttcc 120
acctcatgca ggcaaaggac atttaaaagc acatccaact aaatcaaaaa agggaggatt 180
agaaatcaca ctagttcatc cttcattatc agggctggct tcaaacctga atgtttctga 240
gtgggatatg ttgcaaaaaa aaaaattaaa ctagatccaa gttacatttc ctctaaaaaa 300
aaaaatgtca aaggacagct gccaaagattt gtttttaaaa gacaccttc aggtaagagg 360
tagtgtatgc tagctaggac tacaggctgc caactcaaca ttgcttgaga acattaagtc 420
ctttgaagca tgttccttgg agtctattaa acattctttc tctggggtca aatgtcaagc 480
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catatccaat agcatcttct ggttcntgga atccnttctn ggaactggat tcatccttgn 540  
aaa 543

<210> 8502

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8502

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atattggtca taaataacat cttcccaaag cccaacagtc aaaaaacaaa caccaaatat 120  
aagcagatta ggcagatttc ctaaatactc agttaaggct atggtgtgct tggttttgac 180  
cagagcaatt ctatggcttc cttttatttt tctccctgga taaaactatg cttacttgat 240  
ccatgcaatt tcagttgtta cagctttaac ttataagatc aaaggaatta aaaagttgtc 300  
agaatagatt ttcaaataat gacaaaaact gacataaagt ctacacagaa ctgacataaa 360  
gtctacacag tcctcaggga tatggataaa acaaatgaag tttcatgact ggaagggggc 420  
tcccttctaa gtaaataagn catagaaagg tatgtaaagg cttttttcat gaaggttcca 480  
aaggggaaaa ntttaaacca tgggtcaaga acnctgggnc ctaaattggn gaataagggg 540  
ng 542

<210> 8503

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8503

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aaggaaaagc aataaggcaa acttgccaat aggttcatga acaaaagtca attatggaat 120  
gtggcagaag gcaaataata atgtattcaa agttttacct ttaacaatta cacttgtggt 180

tccagttatc tgttgataat ataaattact ccgtatttag tgactcaaac aacaatttta 240  
 tttctctctc atgggtctgg agtttggctg gattcagcta ggtagttctt gctgagggtc 300  
 attcatgggg ttgtcatcgg atggtggctg gtgatggaag catctgaaga cttactaatt 360  
 gcagccaggc atggtggctc atgcctacaa ttccagcact ttgggagact gaggtaggag 420  
 gattacttga gcttaggagt tcaagaccag cctgggcaac atagtgagaa cccatttcga 480  
 attatttnaa aaaaaaant taaanccaaa aggaantgaa ggcttactac ttgcntattg 540

<210> 8504

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8504

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 aaacattttt tggncgtgtg gaaaatgtaa ttccctgagat cattgttggg ctttgtcaat 180  
 cattttcctc accatcaaat caccttaagt gacttgggag tgtgaatcta ggatgttcaa 240  
 ttttagacca attttctcta tcttctaaat gagtaaacag gctctgtctt ttataaaagg 300  
 tagaaaaata accatgggtg gctaattttt ttcaaggtat accatatgga aaagtatagg 360  
 ctgaacacaa aggaagtctt ttctgaatgg ctctcaatca cacataagga acatatgntt 420  
 tccagttaat ctgtccttga tgtacagcag tncagctggt gctttgcctt tattaaaata 480  
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 tn 542

<210> 8505

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8505

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 aaattcaggc acaacagaca caagatccct ggcctcaggt accttatgat ctaattaata 120  
 gatattagaa acagtagaaa gacaagttac acgtcaatgc ccaatgacta gagtcaacat 180  
 taaagagttg taattttaagt aatccaaact gacatctaata tccaaaatca tttataaaat 240  
 gtatttggct ttggaatcca caggacttca aacaagcaaa gtttcactgc agatagtcac 300  
 aaagatgcag atacactgaa atacttaaga gccttattaa tgatttttgt tattttggat 360  
 cttctgnttt tttcttatta tgggtccgaag cctccttaata accaatttat cagacagaag 420  
 catgtcatct tgggtggtaa gataatccag taaatttcag tccattcaag tgccgcttta 480  
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 an 542

<210> 8506

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8506

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 ccaatgtact ctgacttgtg gttatatctt aactatctca actgtacttt tctggtatgg 180  
 ccagaccttt tgcaaatatt accatgggtat ttttaattta tgatataaaa cagtagcaat 240  
 ttattaagtt ttccattata aaaattaata tggcaattct caaaatactg aaaaaactgt 300  
 tttatgaaag cagtaccac atcactgcaa cgtatttcct ttctcttaga aaacatcttc 360  
 aaaaggcaca ttttaattac tagtgtttat atctaaagat agtagtttga gttttgaatt 420  
 tccgtcaatt ttccattatc tcaaaattga gctaattggag ggttggaaga ggtaggagaa 480  
 cgcanggttt caatggactt cctnanggca gcanaatccn attcattttg gccctgggga 540  
 nc 542



<210> 8507

<211> 174

<212> DNA

<213> Homo sapiens

<400> 8507

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gattttaaaa aatgtatttg tgttttgcag gttggaacgc aaacccagtc tggccacgtc 60
ccgtgaagtt gtggacaaaa tgtttcagtt tctgttcacc tctgtgcgtg tgtgtgtatg 120
tgttgtgtgc atgtgtgtgt gtgtgggggg gtgggggatg gggtcggnnn nnnn 174
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<210> 8508

<211> 312

<212> DNA

<213> Homo sapiens

<400> 8508

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gtatTTTTTT tttttttttt tttaccatta aaaacagtta tgaaatgtgg catcccgttg 60
atgcaaggac tgggaaagcc atttttattt tttttttttt ccccaaactc actgtaaaca 120
acagtaactt tggttaaaat aaaaaaagtc ttctatgtag gcagagcttt gtcttttcaa 180
agagggtggg gtagggccct gaggggagta aggtgaggac aaggacaga aaggcgtgag 240
gtgatggagg gaggggaggt ggaaggagga nagagaaaca ggnnagactt tttcccangg 300
ganaanctgg nc 312
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<210> 8509

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8509

acatgttcat accaacttta ttcattgatag ccccaaacta gaaacagccc attgttcacc 60  
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 ctcagccata aaaaggaaca aagcttaaac acactgatga acatacaaac atgctgagta 180  
 aaaggaactt acagaataca tactgcataa gtgagtcctg tatatgaagt tctagaatag 240  
 gcaaaattaa tctacagtga acaaaatcct aacagtagct gactgccagg ggaggggaaga 300  
 agggacagga gagagagggtg caggaattga ctaggtgaaa aaattcagat gtaatacaga 360  
 tgttccagac ataggggttt gagttacatg cttttacatc aaaactcatc aaatgagtct 420  
 gggtatnggg gntcacacct gtaatnccag ctactcggga ngcttaggca ggagactccc 480  
 ttgaccagg aggtggaggt tcantgagcc cagancaggc cctggacttt taccctgggg 540  
 gatn 544

<210> 8510

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8510

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 cggccatgct cctgtggctg ggctgctcta caaggcggtt cacttttctt caccacacta 120  
 tgtacagtca gtgctccaag gtgatgggct acagtgtgc atcagtgagt ctgtacacac 180  
 atttttacat aaattacaca cgactcatal atgaaaaata gagcctaagg gcctgtattt 240  
 taatgagaaa aaaaaaattt ccaacatagt tcgggtagct ttgaatggct tagtcaaaaa 300  
 atacttttgg tatataaaaa gcctgtccgt acaattcaca ccttagtgaa agcgcccttc 360  
 ttgccttgag gctgggcctg ggacaaaggt ggcctnaca gccagcccag gcagggagat 420  
 cggcagaaaa ggggtggcccc tgacccagn tncntnggcc cagctgtgc tccttggtgg 480  
 gcgggccctt cttgacacca ggcgtntggc atccttaagn nccaaacaag ccccgtttac 540  
 tggncctggc tggccttaaa caatccaccc t 571

<210> 8511

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8511

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aatgaaaaac accaatttat tatacttatg atactgttta ccaggacctg agcaggctac   60
ataggagttc tcacatgat agccaaacct taagctaaat aaatacacia gcatgtgtta  120
cttatcaatc tgaaataactt cttatttaat ctatgtaata taaaaatcat agtaattctt  180
tttattgaat ataacaagaa aatatacagt acacatacag ttcaaagaat tatcaaaaaa  240
cgaacacacc tgtgtaatct ggttaactac ttcaagaatc agaacattat cagctcccca  300
gaaacctccc tcatattcac tcctagtcac tacctccttc ctcaaagca gccactatcc  360
tgacttctaa aaccagagac tgggtcatgc ctagttttca gtttcatatt aatggaatca  420
taatatgtgt tgnatggctt cttttgtcaa cattataaga ttcacttaca atggtataca  480
tagctgtaat ccggtactgn tataaggcag gctacatcta caacntaagg cttttaacaa  540
tgnactgggt ggtctacatt angntatccc a                               571

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<210> 8512

<211> 529

<212> DNA

<213> Homo sapiens

<400> 8512

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agccacaaac tctcggcatt tgagaccgtt gatttttaat attttcttaa aaaaatacaa   60
aggaaattaa ctctgtaggt caatacaact cagggaaga gggaaaaatg gaatttcaga  120
gcaaagggtg tttaggttat cacattccca cactcctaata acccacaaaa caagaatttc  180
actccatgac acagaggaac attgaatggt agctcanaaa tgttgatagc tgaggtactg  240
aaactaacia aaggattttg gttgtccttg attattctgt cctgtgatga ataaaatcta  300
cactaaagga caggtaagga aaacttatag cagaaaaaag actagatgta ccaaacacag  360
cagtacaaac cactccttgg cagacatgtg cttctaaaag aatggggcag taatcaggta  420

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gctgaactac taggctnctg ncactnccag cccattccca aataaatagt gtggaaatgt 480  
aatagnгнаa tagtatttga tcccaccaa aaangntttt aacccatt 529

<210> 8513

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8513

atagaaaata aaattaatac ttgattttat taagggtggtt tatcacaaca aataccaaca 60  
agaagagaaa aaaatctcag gaaaatcaac agcatgcatg gatttggaat gacactatgt 120  
aaataaatgc aatgaaataa aattgacttt tcaacacttg gacagcatga agttcaacag 180  
acaaatccat taaaaaggga aataaaagct caatctcaag gtgaaatttt tgtccatgac 240  
actctcgaat tctagatctg aaaaagtttg ggataaatgg cagaaaacaa cgcgtcatca 300  
cgagatctct aatttaatcc aaagctattc cggaaggcag cagttttccc tattttctca 360  
ccagcgccct ggggcaaaag gttaggaata atcggcttca ggaacttgaa ctgcgccggc 420  
cctgagtctc cgggtcaaaca cacctcgtag tggtagctct gggatagggt nccngtgccc 480  
gntcacgtcc ccagatgccc tggaaanggg cccttgcccc nagcancgac ccgaaccggg 540  
gccgcctggt cctctggana aaccga 566

<210> 8514

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8514

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taactatgaa tagcaaagtt ttgtgacttg tgactcactt aaatcaccca tctgaaattc 180

attacaagg tttttacatt aataaaacag tagtgtggta catatatggg actcagatga 240  
 agtctaaagt acactggact ctagagagtg gattacatac caacgaccaa gattcaagtg 300  
 tttggggaaa aaaatacctt agacagtcta tgttggcgtc aacactaaaa tnaaaggcaa 360  
 acatgcagga ctttcaaagc ttgattagat aatggntcctt tgnntctttt ctttcaaatt 420  
 tgtgctcata attaatatc angttccctc ttnccgnttt catagatncc caaagttgag 480  
 aaaatgcagc aattcaattg ggaaaaaac attcttctnc caacttctgg tttcatatga 540  
 ctggggaatg gtatcaaggg taaaaag 567

<210> 8515

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8515

aaaacataag tatgggtata tttatttctc tcaaatgcat acaagacaat aattacacag 60  
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 atatcaatac ccttgtatctt ttaaatacag taagtaaaaa agcccccaa taaccaattc 180  
 ttatatttcc tatttatccc tctatacatc caaactttta aaaagttaca aactgaacat 240  
 tatacagaac atataaatca tgtttaaaaa cttgaggttt taaaatcact gcttccccaa 300  
 tatgattcag aaaaattctc atactgacaa gtacagtcac aggtggtaaa gtaagttggt 360  
 ggcggggaaa atgaaagaag agacagacac aagtttgctg tcttaatgtt ttactaatcc 420  
 tgtcagttaa aaatggngac gtcatgagaa gtaatagttt aatatgagga atgggagttt 480  
 gccttgcagc ttgagacatg catttcagga tttttcctat tggactgggc tcctggagcn 540  
 aactngtgnc cnaaaanaaa ta 562

<210> 8516

<211> 580

<212> DNA

<213> Homo sapiens

<400> 8516

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ccaggtacaa cagcaggttc ttttccaatt cctcaaagcg ctgcatgggg tgggggcaga 60
gacagaagag aatgtaaaca ttgggttcca cccctggag ctcaaggga gacccttacc 120
cagataggga ctaactggag ggggtgaagg gaacaaggtg aaaggtatgg gtcctgggtga 180
gacaaaagca ggggggcctg agaacacaga gcaaggtggg tttggaggga gcacagcagg 240
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gtaaagggga gctntggagt gtaagaatct tgaaacttgc tgacttccat taaccaggag 540
tcanccttg ggattacaac cgggccattt anggacagct 580
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<210> 8517

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8517

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caaagtatgg tccttagaat agcgtcatca taattgtttg gaatgttatt agaaaaataa 180
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ggcaaactgg taaaactaga aaactaattg gcaatagcta ctaaagntgg ccaaagggga 480
tctatacgac cgggcaattc ctttccaaaa atttccccac ngaaaggntt tttttgcttn 540
c 541
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<210> 8518

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8518

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ccaaaattgt gctttattaa atgctagttc attggaatgt taatacatgt ttcacacaca   60
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aaagttaagc ctgtttcttt attataagac ttttcagata ctttcccagt gcatagtgtg  180
aatctccaca aagcaagtga aacatgaata gctccctaaa cttacttgac cacagaatgc  240
ttcattctat ctccatggaa accacttggt aaagtctcct actccaactt tcttctccaa  300
caaaactcac ctgtttgtga tcatctgaac tcattttgtg ctcttgcttt tatataaaag  360
agaagttctg tgaaatgttg aagaagcagg gttatggcac tagtaatgat ccaggcctat  420
acaaattggt aaaattttcc attatttttag ttcagaagcc ctacatagg tattctaaca  480
gtggattgtg ggaaccctag atgagtgggt gagacatggt tccaaaatat aggagctnnt  540
ttaaaaagga atcccttaat aataccgg                                     568
    
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<210> 8519

<211> 579

<212> DNA

<213> Homo sapiens

<400> 8519

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agtagaaaaa ataccttttt attaattatt aggaataatc cattcatgta atgcaggatg   60
tatgttggag aaggtttaagt acagccacat gaatgagggg aaacgtgcaa gaggaacagt  120
ggtgagaagg gggatgggtcc cccactttcc acaaactata aacagcaaca tgaacacaga  180
gaatcacaaa taagagggtc tttcctcatg tctcctctca cccattctt ccataatgag  240
tcccagttgg tccctagagg tgccagggca tctggaagtt ctgggctggg agtgggggtgc  300
    
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agtgagtggc ctcaaagttg tgcagatgct tccgagccag aaacaaagcc agctgccgcc 360  
gtccatctgc actcatgtct tccccacgct tcaaggggaa agtcngggccc cngttctgcc 420  
tggtaggaac cggaggacag acnggacacc agtcctnttt caccttccat cggctattaa 480  
attggggctt tcttcancct gtgaaggang gcttcaacca ctggcttanc actcgaagac 540  
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<210> 8520

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8520

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aaacaaaaca aaaaaacaaa acaaggcatt tactcttggc ctttccagta caggcgaagt 180  
gttctattgc atcacaagtg ctagtgatgc agtaacagat ccaagggcac aatattaaat 240  
atgttttttt ccaactgcga tttagttgaa aaataacata atacaaacat atattaatgg 300  
ctatcaagac cagcagtgat ctgcagaata cctagaggcc tacctaatta gaaggttgaa 360  
acttagtaaa accgtattaa agtcagtgtt tttattctta gattaacaat gacagagtga 420  
agatatcttt gattcaattt tataaggtgt ggtgggggaa ttgagaggag cnagatttgg 480  
ggaaaactgg cantgggtgc tgagttaant tngggaatgt gggtaaata agcnatntgg 540  
ttaggana 548

<210> 8521

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8521



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 ggtagtctcc taacaatcat atgaagacta tcctaaaatg tcctttagta actgtcatgg 180  
 actgaaaagt atcccacgaa gagacaatgt ctactcagat catgtgaata caaacttact 240  
 tggaacatgg gtctttgtaa acataattaa gggctctccag acacaatcac cctagatcag 300  
 ggtggggccct acattcaaag acactgtcct taaaaggtaa tgaagagaag acagagggaa 360  
 aggccgtgtg aacacagagg cagagactgg agtgaagatt gctgctgcaa tacttggaca 420  
 agatttgtcc agaagccaaa gaactccagg aattgcccac ggccccagat tttnggaacc 480  
 gccnttnaag gccggttatg gatcttcctt aaggctcnna agganccact ttgtgacctt 540  
 tganttaac 549

<210> 8522

<211> 414

<212> DNA

<213> Homo sapiens

<400> 8522

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 aaagggcaga acccagtgtt ttttttaatg gttgttattc catgcagaaa cactgactga 180  
 tccagaactg gtaactaagg cggtgatcaa acaggaatgc ttttcttctc agtttaggac 240  
 gaagacccgc catgacaatg gcgggaacgc tggagtaaaa cctcacggcg gccagcatgt 300  
 agtttttcgc cagatttgtg gccccacccc caagtaccca cgcgagagg cctccagtca 360  
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<210> 8523

<211> 572

<212> DNA

<213> Homo sapiens

<400> 8523

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 ttttcaatag aaagattttc taaggacatg atttggagcc gtccacattt atcagatgcc 180  
 ttttcattaa ttttttccat ttttgcaatt ctgcatccaa actgcatggc ccgtttgggc 240  
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 ccaattcctc ggggtaaagt caagtttgct ttttcccaa tcggcagaga atttagaaag 360  
 gagacaacat tttcatccag gaaaggaaat ctgcttctt ttccatgatc accaataact 420  
 ctgtcatcac gaccaagatt ttaggaagaa attcgacca gttccatcat tatttcttat 480  
 tcaatccttt cagcccatgc gactggaagc ngacccgatg accagaatac ctggaagggtg 540  
 ctcattgnnc catttcngng ggactacctt gg 572

<210> 8524

<211> 572

<212> DNA

<213> Homo sapiens

<400> 8524

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 gataaattca ttcattctctt ttgtaaccct ttctgtttgc tgcttttctt cttccatctg 180  
 tttatcatgt aatagctgct gttctttttc ttttctccaa aaagcttcct gtttttgccg 240  
 gattcgatgc cgtaattctt catcatcagt gtcagatgac tcagatcctc tgtcactcct 300  
 ctcatcttca ctgtctcctg atccataacc acccagtcca ccgagtccag tgagggaagc 360  
 cagtgcactg gactgtgcca gctgttttgc aggagctttg tatcacatca acaacaggaa 420  
 caacatgtta acacaaatag ccncgattca tagtcatgag tctattggna ttggtaaaac 480  
 tactactaat gctgnntttt ggggagagaa naaacnntn aaacctacca tcattttaac 540  
 cagnttaagg ctgctttgaa atataaccct gg 572

<210> 8525

<211> 596

<212> DNA

<213> Homo sapiens

<400> 8525

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gaggggcatg tcatcathtt aatgatgtga tctttgggtg ttccctcatt agctgtagac   60
tatccctctt cctcccacca caatgtttct atgatgagtt acaaacagaa aggaaatcac  120
attttcatac taaaaacaaa atgatcagag ccttgatttc tccactagaa actacacgta  180
cagttaagag tccacatgca acaccttaaa tcacagactg agacctcaca ttctgacctg  240
gagtctcttc cccttcccca gccttgggct agctttggcc taggctcagg taatactgac  300
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ctggccagcc tacaccccc actcctgagt gaggacctgc ccactgtccc ttgaccccat  420
cctgtatcag gcaaagcagg cgccccctta ccacaagta agtcccccat tagtaaattg  480
ccnaagtccc tgtccttcaa gaaatttggg agcctgggcc cgatcctggt gggttcantg  540
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<210> 8526

<211> 576

<212> DNA

<213> Homo sapiens

<400> 8526

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aaccactgta aatttattat gcattaggaa gcttaacctt aaaaccaata gcatagtaaa   60
aagatatgtt atctctgttc atagcagaac aggtttcaaa atatattttc ttttaaattg  120
attcagtcag tacacaatcc tttataaaag ttgtatatat tttttctgt caataccttc  180
attacattta taaatacaag atttacacag caccatca aaaaaaaat taaaaccctt  240
tacaaatatc tacatatatt tcatacctat aaaactttca aagggtgtgt ctgttaaagg  300

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tgggccctag ttaatgggtcc atttactggt gcagcaaaat catataaatc tgtaaagttt 360  
 ctttgccata aaacatcttc aaaaaatagc angacactta tcngngaacc tcagcttcat 420  
 aaancctaata ttagnaangg acttaatggg cgtantccat gcgatcaaaa aggttaacng 480  
 gatggaataa gatgaattgg aaaccaatgc ctctcagag canttaggcc gaatgtgatg 540  
 gtgagaaaac tttagaagcn ggactggaaa catggn 576

<210> 8527

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8527

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 tctgggggag gagttgttgg cagtgggtgat ggaattggga agggctctgtg agaaaatctg 120  
 aggagcttcc tgcctcccc anactcct cacaagactg tctctctcag ggttgcttgt 180  
 gagaatcatt taggaactgc tgcagngtt tgatgttttc tgaaccctc cccanaaagc 240  
 ccaggagctt gtaattgaaa caagaagtna agggaaagac ccagaatcat catttcccca 300  
 aagtcattag aggaggccag taaatgtgtt tagggggcac aagttccaa acgccacccc 360  
 accattcctt cctaggaagt tctcaaaggt cagcaccaag aacctgtccc tctctttca 420  
 tctcctcctc cttctggtct nctcctgggg cttggaaaac cantgcttg aanaggaaa 480  
 ggnaaaagga ggacttaaaa tancgatcc naccgttctg ctttccgggg tgacaangga 540  
 ttgcccaacc cttaaagggt tgcccgaagg g 571

<210> 8528

<211> 508

<212> DNA

<213> Homo sapiens

<400> 8528

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aattactgca tctatactga aaatacatag actcttttcc ttatcatgag tccctaaaca 120  
atacaataga acaactatit gcatagcttt tacaatgcat gaggtatitit aagtaatcta 180  
gacataattg agagtataca agaggatgtg ggtaagttac atacaaatat gtcattitit 240  
aaaagggact ggacatggct cacggagtgc tggaaccaat acccagcagg tatcaaggga 300  
tgactgtctg gaaagaaaact gaaattactt aaggttttac caagtgtta cattcacagg 360  
gctatctcca atgggttcgt acaagtatct gaaatgaaat aaaattaata aangctttcc 420  
acattccttc cttttgagag aagctntggg gcttttaang ctatccaggg actgggnanaa 480  
ccaatntitit nccaattctt catcctac 508

<210> 8529

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8529

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agatcacaac ctcattcctg aggtggaatg aaagatctaa gccaggcctc catcctaggc 180  
caggctcctc cattaagcag agacaaccaa aagataagaa agccttggcc tcatcccat 240  
caggagatag cctgaactgc tcacaaataa gaaacaactt gaccagactg aggactgggt 300  
cctgatgagt caataggaaa gtcagttggt tctctcttca gtaggtgact tagcaccctt 360  
ctggagaaca tagagtagta gtctggacct ggaggctaag gccacattc aacaaagggt 420  
accttctitit cagtaacgct ttggctctit tttcaacagc aagaaacctg aatccangg 480  
aagtcattta aaaaaccct ttingctggac ctggaagcat ttccaagnca actgggggtan 540  
aaatnaggcc tccacnttag ggggn 565

<210> 8530

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8530

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tacaatgcat aattatcatc ttttaaagta caagataaaa atcatataca ttatagtaaa 120
gaacatatga gtatattctt gtttcagaga agaaaattgc cttaggaag ctgggttata 180
ccgtttttgg atgtgatttt cgtatttata ctgaatcatc cgaacagctc ttggttagaa 240
aataaatctc attgatagga cacacaacct ttcacagctt tcactttaca atgttccaat 300
ttaaagtcag ccagtgtgct ccctgaattt gcatgagtca tcgtatttca tcccaggact 360
agatgaaaca cctataaatt gtctgacaat agttatacac gttaagaac tgnatttctt 420
agtaatatat cacagaatag aaccattttc ttaagatttt atgtgactct ttattgattt 480
tttttctcca agctattttt ncaaagatg gattaatttt gggattancc tanagtttga 540
cttaaactcg aaggggctct tnna 564

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<210> 8531

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8531

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aaaaccaaac caaatcattt tattgggcaa tttccttnta ccanaaaatt actaaaanta 60
taaatattaa ctctntaaaa aatactcaga atagatctgn aatcttcctc ctctcctnc 120
gaactggagc caatcttntt ntttaaacnc tgatggattg catacatgta tgtcttccat 180
atnanccaca tacacaacat tcagatacac ttccctttgt gcagggggat acnccancct 240
cctgccnggt tntggaagct caccttataa tntaccagga caaagctgtg tgctgagtag 300
gaggttatgg nggggttggg gagtaacaag gagataaaag accttggggg cccaacttcc 360
ttatgnggac agagaagata ggtcctttac tcctctntcat taccctgccc tctcatggac 420
tgggctaact gaaggccaan ctcccaaaga agcttggact cactgngtgg gattactgnn 480

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ggtgtggctg tcagctcagc nccggaaggg caaactttna aangggctgg gaaccagg 538

<210> 8532

<211> 577

<212> DNA

<213> Homo sapiens

<400> 8532

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 ttatgccagc agttaaatgt gaatectact caagaacatg ttccactggg agttttgatt 120  
 aaactctcta ctctgattta actgttctct cttccatttg aaaaatcaga gtacttttta 180  
 atcagtcttt gctaaacagc agctattgct attcaatgga gacgggtggcc accatttccc 240  
 ctgcatcgtc tctcctacgt aatcagtcct tgatgaactc tcttcccata aaaatccctg 300  
 tgtcctaaag tcatggcgtg ctctatttca tggtcatttg tagagcacag cagcactgtg 360  
 cctgtcagga aaagtgtgtg ctaactgcaa taagcatgat gactgccatc acggttttgt 420  
 tattctctgt ccacctccat ggtctctaaa tcagacaatc ttaaatctga aaaggcagtg 480  
 tccttattcc tccaggaaac tggatagaaa cgctcctcat ctaatggaag cagccctgnc 540  
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<210> 8533

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8533

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 gcttgaggcc cctgagcccc accctccttt ccagaggggag ggaggagaca gctgaggggg 180  
 ccctgaatca gtcctctccc tcgtcccaa ggccagctgt gccaggcccc tggagggcaa 240

cagctcatgc ggaggactgg ggggggaagc aaacaggtag gaaacggaaa tgagggttaac 300  
aattacacca tcacccccaa aaaaaaacia aataacaaaa cttgtgacta tgaaaggatg 360  
gaagatgaat actgataaac tcctcagctc ccataaaaag ccagctctgg gctgggttgg 420  
gctgattgga ggaaaggctt tgagacccaa ctgcatgtta cctctgaaga attaatatc 480  
tangaaaaag ggaaaacat gaggaagct tctgaagtca gttacgcan tnacaaggcc 540  
ttggcattgg ccacaacctg ccccttct 569

<210> 8534

<211> 575

<212> DNA

<213> Homo sapiens

<400> 8534

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ggagaaatgt tttagccata aaacccaaaa ccggatttga gtaaataccg nggttcttag 120  
ttaagtaaac acctccatct tatgtaaaca ggtttaaaac aaaaaaata ttattttctg 180  
atttggttgt gtaatcgtgg gcctcagagg aaaagcttcc taaccctttt gtcatatata 240  
tatatatattt ttggagtctt gctttgtggc catgctggaa tgcagtgggt caatcttggc 300  
tactgctac ctccacctnc tgggttcaag caatnntcct gcctcagcct cccaagtanc 360  
tggaactaca ggcgtgcacc accatgccca gctaattttt gcattttgta naaatgtgggt 420  
ttcaccatgt tggccaggat ggtctttgat ctcttgacct cgttatctgc ccacttcagc 480  
ctccaaagtg ctgggaatac naggtgttaa acaccggacc cagnctcctt tggcatntct 540  
tgaaggaccc tcaaaaagan atccttgggg ggaac 575

<210> 8535

<211> 580

<212> DNA

<213> Homo sapiens



<400> 8535

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aaaacttaag agttgtttat ttctgaaatt tticatttag tattttcggg ctgcagttgg 60
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tgaggtatcc taccctacat ggcctgggaa tgtttgttct catgctctgc ctggcagtta 180
attgttcaca agtgtcccca taagtaactg tcgagaagat tctcacagga gaccacgtgg 240
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tcccagaaag tgggcatgca gtttcccagg ccagacgagt gttcgttgct caccgaagac 420
cagtgtttac tagcaggatt gtcgccagaa gcagctgcat tctccccgga tgcagacctg 480
cccgttggtg gggactctgc tnacacngaa catggccggg acacctgtgn ccgttggtgac 540
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<210> 8536

<211> 590

<212> DNA

<213> Homo sapiens

<400> 8536

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atactggaga gtaataagac atactggaga gtagtaagt cacacgtggc aattaagggt 180
tgtaatttag atgtaacaca agaaaaaaag taaaattact gtactttatt gctgtatcta 240
tgctttccca gtatagctat aatactacaa ggagccacag agtgccacct tctggtttta 300
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gcagcagtta caaatgttg tctgagtgat tctgagagct caaaacaagg atccgcgtat 420
aggctgaaga aaaagacgtt cagttaacag tgcgcgctgt agaacttta cacaagtctt 480
cangtggaat tcctgtgtaa accttagtag agatgccact nacgngacc aaaagtnaaa 540
atctttttan ccgntacaag ttaatgaggg ggctggattt tgcaaccacn 590

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<210> 8537

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8537

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cagcctccgc ctcttggtt caagcgattc tctgcctca gcctcctgag tagctgagat  120
tacaggcaca cgccaccatg ctacagtaac ttttgatatt ttagtacaga cagggtttca  180
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caaggcattg ggcattttga agaaactgca ggttaagcta tggtgccaag cagaagacta  420
aacactgatt tgagtgtcaa atcttcagca cgttctggga tagaggcagg ttctcaaatg  480
gttcctanng gtcttttctc ttactaant aaattttcct tttttgggga atcnangcag  540
atacaaacc ctggatggcc tttttggcna a                                     571

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<210> 8538

<211> 596

<212> DNA

<213> Homo sapiens

<400> 8538

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tcagctgcta taattatatt tctgaaaga cataggtaac atattacttt taaattactt  120
gggtcaatga aacatttaat aaaaacattt gtttctctat ataatacgta tgtataaaat  180
aagccttttc aaaaactctg gttttcataa tctctataa atcagatgat ctgacttcta  240
agaggaacaa attacagtaa ggggtataca tttatgaata ctggtagtac tagaggaaag  300
acgttaaacc actctactac cacttgtgga actctcaaag ggtaaatgac aaagccaatg  360

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actgactcta aaaacaatat ttacatttaa tggttttagt acaataaaaa aacaagggtgg 420  
 atagatctag aattgnaaca ttttaagaaa accatagcat ttgacagatg agaaagctca 480  
 attatagatg ccaagggttt actaaactac tatngtagg taaaggaaat ccatttnaca 540  
 ccctttatat aaaatcncta tcttggcttg nggcncctct taaaagntta ccngct 596

<210> 8539

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8539

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 ttttttgatc agaagactcc atgaaatgag agcgggtgga atatgaatcc acgtgatatt 180  
 tcaagtcttc ctgttgata gtcatacaaa tgaccagggt tgtgctgcaa aggagccagc 240  
 accatgtggc tactgctttg attgttctca gatgaatgtt tatacaaaat aatatcttat 300  
 cttcatttag ttataaaca tacacagtgc tgtccctttc aaattaagga aaaaaaacca 360  
 cacacacaaa tactgcaaag tagcaaaata caaaggaaaa caaagctact ttnggttttt 420  
 ggcaacatta aaaaagaaag aaatntaaaa agcaatgtgg cattggtccc taticattaa 480  
 aaaaaaaaaag ggacttnggg cncnacanaa tcagaattag gttngntttc taaaaattca 540  
 aag 543

<210> 8540

<211> 593

<212> DNA

<213> Homo sapiens

<400> 8540

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 tctgagatca gacggggttg ttcctcctta ggaagtggcc actggaagca ttgtttttcc 180  
 atgctatttc cgtgaagcct tttgcttggt tcgagtttaa atttctccct ttgtgtgagt 240  
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 cacatccttc ctcaaaggaa ggctcatgag taaatttgta tgcagtatna agcccaagta 480  
 gaggggtgat tttaatgact actttgctta catttttagat tnggccaaat gtctcaatca 540  
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<210> 8541

<211> 583

<212> DNA

<213> Homo sapiens

<400> 8541

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 aaatccagta ttgcatacaa caaataataa tggigtattt cagcaagttg tggttaacaaa 180  
 ttgaagtaaa tcaatgtact aagccacatt aacagaacaa aaatgatata caattgtctc 240  
 aataatttac agaaaagaca taggtagaat acgagttttc attttataca aaaacttgta 300  
 gtaaattaac agatcagaac ttcctaaatt tgatccccctg catcaatcaa aaaaaacctg 360  
 catcaaatat tatgtttaat ggcaaaatac tgaaagcgcc ccctatccac ctcaagacct 420  
 gtcacagtc aaagatgctt actctacca ctgggtgcat cctagtctga gtaactggtt 480  
 aaaacgaaag aactgtctgg ggcgcggcgg gtcacatntg naatccagcc tttgggaaaa 540  
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<210> 8542

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8542

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agatacaact tttaaaaaat taaactatgc aagaagtata tttaaacaaa acatgtaagt 120
aagtattcac gtgctacaac ttaactaaga acaattaaat acaaagcatt ctttccacta 180
tgaagactct ggagcctcta attgaaagca aatgacctta ggtctatact agttgtaaag 240
cagattatac ttttgttcaa ctctaaatth gtattgtctt agagctccaa caactctcaa 300
taaaaattta aataaagaaa ccttggggga ggggtgatag gggaagggga gagtaagtgc 360
tttttcaaaa aggtaaatga aaaagcctga agagggaaaa aattgncata agtatggaac 420
aaaaataagt atactttttt gacattcgat gtagatactg naaatgaatt tcccnggttt 480
aatcaatgta ggatagatnt ttggctgaat ntttaaaaag cncctaggnt caaaant 537
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<210> 8543

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8543

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gccctgtctt tgccctagtt cccgagtgtc cttcaccccc atcttccaaa tcattctctg 120
tttcacgggg aagaaaaaac ctagggtctg tgtgaatgtg ccctctcagg tccctgagtt 180
ggccccaggt agagctgtaa gagatcagga agagggcctc cctgcctgac ggcgatgac 240
ctggaggcaa cgtgtggagc agaaagagaa gtcgaggtag tgaaaggag tcaggccttg 300
gagggatgcc ccacaactcc agcagcgtcg agtattgacg attgcagagt cagggtattg 360
agaggtaggg gctcccaact gggcagcgag tcggcgctct gcagccagag ctctcttctc 420
tcggtcactg agggcggaac atcgccgtg ctcttctngt tcacgttct nctgnttctg 480
ntgcctctgn tgntggctct tcccgttgcc gccggctgct ttggttcctt ttccgnaa 539
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<210> 8544

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8544

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caccagcagc gtcctccctt tattttagtt tattaataga atacagagng caggcactta 60
cagnggtcaa actgagcgag gagtgggtga ggtctcctca nagagaggcc gccctgggcc 120
caccatcag ggaggcatgg gcgggagctg anaggcccc aagaccccc gccaccacca 180
cccacatagc ccaagcccag ccaccctggg ggaccagga ggaggaggag gagaggaata 240
gggcaaggcc ggcccgggcc aacggntccg ggcctagcaa aggcacctnt ggcagccgag 300
gctgggccag gctcaggctg tgtggttaat atggccggga aggactatgt acaccttagg 360
cctgcantg ggcactaccg agcccactgg gccaggcttg ccgctgggga actcctgcta 420
atgggaagtt gatatacccc tggacccac aagggtggg gatgtangcc cnttgtgcc 480
cgacttttta naaggcttgc ctaatgggct ttncaccca anaaacttgg tagaatcccc 540
ccaggntgga cccn 554
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<210> 8545

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8545

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aacaatgaga catatgcagc tttatttaat aatccgtaaa aagtcatact ctggcagagt 60
gatgcattcc ttatctcagc agaaagcaaa cagtctgtct gaaaagcccc ttccaagat 120
ttggaactgt gtaaccctga gcttacatct caatgctccc aagagctggg ctcttgctat 180
gtggtagttg gtctccacaa ttctctcacc ctccagcaat actctctgtc tggctgtgac 240
tccctcacct aacagtagac atgaggctga aaacaacttt acctggacag ggctaccct 300
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acagattggc cctttctctc ctacaaaagg gagttcatag gattaacaat ctttctaattg 360  
gctgggagca atgactcatg cctgtaatcc cagcactttg ggaggctgag gcaggtggat 420  
cacctgaggt cangagtttg agaccagcct ggccaacatg gtgaaacttc atcctactaa 480  
aaatacctaa cttactggg tatggtggca agtgcctgna anctcagttc tcggaggcta 540  
agccgganaa tnnittgaacc cagggggn 568

<210> 8546

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8546

acatacatat tcttatattg tgtaataaaa gattctgaag tccattactg gctagaataa 60  
taactagaaa ttgcttaata ttactataca ttgcatttga acttaatctc cacagtaaca 120  
attaggtagt attacttgga tttcatggat gaagaaaacc aagatacaaa aagttcacac 180  
agccagtaag cagatgagcc tgacttcata gtcatacata gcctgaattg agtcccagca 240  
ggagcacatg ggcatggaca tctaccagat ttgggaactg gcgtagccaa gcaagaaata 300  
ggagacggaa tcaggagtta ggattccatg cttaggacca tcccagatgg atggctgcct 360  
ccctctggga gctgcactct tctgaggttg caggcatcca gggccagggt gcttctgtga 420  
ggtgtgccag cacgtgccac tctgcttgga tcaagctatc atggtctgan ggctgcttnc 480  
ctcancataa gaaggggctt ctattgggaa gngtaggctt cantgnaggg nccacttgag 540  
cctttttttt agagacag 558

<210> 8547

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8547

agaagtactg atttttattg ttatacaaca catatatata attgtttccc caaaatatgc 60  
acaattacat gtgtcaattt taaaaaatga atgaagacta taatgtaaaa cctatagctg 120  
taaaattcct agcacaatac agaagggtga agcttcatta caactggtcg tggcaataat 180  
ttgggggacg tagcatcaac ggatgagaca acaaaagcaa gggaatacac aaggtactga 240  
atcagtgtat gaaaaatata ccaaacagac aaagcagaac atggaataga tatatgcaca 300  
ttgtagtatt actcacaac atgttacctg gaagcaaagc tacccttaag gatgagtaga 360  
ttcagcaaac agggcacgta caatcactgg gatagcattc agccttaaaa ataaggaaat 420  
cttgaaaagt ctaccataag gacaaatctt caaaacattc tggttaagtaa aataagacag 480  
tccaaaangg aagctgntta atacctcat gtaaaaatta gtcaactcaa ggaanccagn 540  
gtcgtantnt na 552

<210> 8548

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8548

ccttttagaca ttacaggta tttatttgag taagagctca taaaatatat ttttataata 60  
tgcacaagaa aaaatacatt tgaatgaata aaaaataaaa tgacaggagg tgacagaatt 120  
tagtgtttat aaatgaggtc ataaagaact ttaataattc agagaagaag ttcaaagtgt 180  
atttaaaagt tgagaccctg ctttacaata ttttataatt ttaaaaaaag gcgttttaaag 240  
gtgataggtg acttaataat ttccacttt caaaatgggt ttctagacac tgttgttcat 300  
gaaccaaaaa caaacaaca aacaaacaac aacaaaaccc aaacactttg gcaagcaaag 360  
tattattagt catagcagct tcataacagt ttactttttt aatataaaga tttttcaatt 420  
cacacttgta gggagtagaa aaactaatat gctaagtctg taagctacgc agccaaaaat 480  
aatgacctaa tgaagcccga atctgngaaa aggtgcacca cactgcttat atagtanctg 540  
agtaaagtga ancctgggct tattaacttt n 571

<210> 8549



<211> 539

<212> DNA

<213> Homo sapiens

<400> 8549

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aaaccacata ctttatttga tgtcaacatc aaagaaggaa tattttaaaa agcacataga 60
aacccttaag ttagtaatat tttaaactgc atgaaaaaca tattatttta catcttgtca 120
tactgtatat acaactgtac ataaacttct gcatttcaaa gcacttgtca ttataaaagt 180
gaaaagtttg aaagtgctaa ataaacattt cctaattatt attttaaaa acagcactct 240
tttggagttt atctcttctt tgtgcttata gttgatctgc aaacatttca agtcaaagtt 300
tctggaaact tctttaggaa acatctggag aaaatcatag tagacaaggg ctaagtgcag 360
acataagcag ctccatttta taaacaaaat ttcgacctc cattttattc cactgaactt 420
ctttgaatgg cccacgaaga tgactccatt tggatcttg naaaacatca ctttttggga 480
aggctttaca tttgntccg aggnaactgg accntaatct tgntggcnct tttanggcc 539

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<210> 8550

<211> 570

<212> DNA

<213> Homo sapiens

<400> 8550

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aacaggtaaa atgaataaca tactttattt aatccaatag agccaacata ttatcattgc 60
aatacacaaa ggaaaagtta ttagtgagat attttacatt atttttgaa gtaggtattt 120
gaaatctggt atatatttta tacattgagc acatctcaat tcagactagg catgtatgaa 180
gtactcaaca gacattgggtg gtcctggat accatattggg acagccagtg ccattctcat 240
ccttgatatt tgtttctacc ctccatgta cctcttaatt tcttttatag ctggttcaaa 300
aaacatattg cacctctcta ccaaagtcac agcagctcac tcaacagctg ttgttccctg 360
cgcataaaga gagtgtggaa aagctggaag aaatcatcct cttcctttaa gtgctttata 420
ttggatcatat tttctctttg ggggnntctt tctattctga gagaaaatat gtantgggat 480

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ggttttctct tcccactact cttttggttt tactgcaatt aattggaagg acgaattttt 540  
tttatgggtca attgntctct taaaggngnn 570

<210> 8551

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8551

caacaaacac tttatatcat ttattaatgc agtatacatt agatctaaaa tctgcagttt 60  
ctaagcacac catgtttaga tctttcagat ctttctgcag ttttaggtta tttctacaga 120  
ggtaccttta agtgaatgaa taccacattc tgtaattcct gaaaatatag tacagagtga 180  
aatgatttaa atataattta ggcacatatt gattatgaaa atagattatc tctcaataca 240  
atacttctct gtcttggtaa aaataataaa gcaaagaaaa tagttcattt ctgaagttgc 300  
tttcttcac ttgtaaaggt ctgatctcct cccactatgc atatgtaccc tttactgtta 360  
aggaaagctt tgcatatgta gatatagaag aataagctac gtaaatacta aagatatgnc 420  
attctcccaa aggagacaca ggtgggtttc aatgattcct tggcttatgg tgatgagtct 480  
gnanaantca gaanccantt ggcccngctt atatcccggg tttgggggan aaaata 536

<210> 8552

<211> 577

<212> DNA

<213> Homo sapiens

<400> 8552

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taatttgtac aatccaacta cattacaatt cacagtaaca tacactagct ctaacctgcc 120  
ttggatacaa ttaagtctcc tcaacacact attttatcgc caaacttaca ttctggcttt 180  
tataatcatt ttgcaacacc tgggtacagta tacacctata gctttgccat agaaatgccc 240

ctaaatgccc ttcagagagc agaggtgaat actttctcat gaagaaacgc caacttttct 300  
aagcgagttc gtttcagtag tgggagccat tcccagtagg ataactctac cacacggtag 360  
ccaagccgag ccagctgccg cctcttcata ttgtgcagtc caaggagatc cctggagcca 420  
tagcaatact ggttcctggt tgtgaactga acagccagct tcattcttgg ggtctgcatg 480  
cangctgcgg ggcacaagcc aagccatctt caatggccct gattatctgn tacattggaa 540  
aaggaagccc ccanangtac agtggcttat ttcaact 577

<210> 8553

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8553

gtcaaaaagg atcaaacact ttattcatct acacataaca tatataaaag caagcaaaat 60  
caggatgttt tcctcagcca ccctttccac attttgtgca gttttagtga actataaatc 120  
actgacttct tcaggcctaa aagagaaaag atgagaaagt aagaagatgg aggcttgttg 180  
agtggatgct cagagtttca gtgacattct gagcagactt gtctttggag gagggcagtg 240  
aggggctgac ccgtggctct aggagaccag ggagctgaag gtgattaaag gtcactgtga 300  
tcaatgtagg gggaaatgat tctgatttcg gcattttccg atttagggct atggatgcca 360  
acggttccta agttattggg ataagtgatc cttttgagtt atgaacatat tggcagcctc 420  
tgaatttagc tctttcaaaa ggggtaggac aaggataaga ctctgtatgc cactgggtcc 480  
ccgtctnttn agcctnaant tcaacccac ttactggctc tatggcctgn gnaangc 537

<210> 8554

<211> 583

<212> DNA

<213> Homo sapiens

<400> 8554

attgtgaaca caatthttctt tathttcattt ttggagttht ctgaacagaa aaatacaatt 60  
gathtttctgt atattgatct agcctgtgac ctigtctgaac ttgattaatt ctattacact 120  
atgathttttt gttgtggtta gacccttaca caatcaaatg aggttaaaaa aaattgtcag 180  
agtggcccca gaccaacaac aggatgacag tagcctttgc ccatacagag ataaaattta 240  
gtttttgcag tcctttccca tagagattgt atggcagtag ccaattctat ggcctactgc 300  
catacaacct gaactgaagt ccagaaagtt taggtgactg ggccacagag ctaattactg 360  
gtggagccaa gaagagaaat tatatcccta cctccttgcc cactaagctc cccattccag 420  
tggggctgct ttctggctct tttccatgat tgggcttttag tagctgncat ttccttcagt 480  
gtncagaag tathtttcttg gcctttcagt aaagcttccc aaagtttgct gngttccgcc 540  
ttaacttgta anttggcctc cntgntaaac atthtttgaaa acg 583

<210> 8555

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8555

ctaagagatg aggtctcact acattgccca ggggtggtctc taactcctag cctcaagtga 60  
tcctcctgcc ttggcctccc aaagcgctag gattacaggc ataagccacc acacctggcc 120  
cccatattcg agcctaattgt tcctttggga aacaactgag taaagaggat gccaaccccc 180  
aaaagaaact gaagataacg ttctgcccag tgggaccgat gatcatgcta taacactcct 240  
tttgtctcca ggaaaagctg aaagcagctc tagctaacca acccccctct aaacccttg 300  
acatacatag ggcttccaac tccagcaagg gggccaacca acccactcaa atcaaaacca 360  
aaaactaaat cataacagta aaaatatgac cagcaaacaa cgaaagagga tatctctggt 420  
cccacagttt cctacgggag accagatggc tgatttctgg cattctctgn cctggagccn 480  
gaaaattacn ccaatntccc ttggacntaa ggtanacctt gnggaccaaa gccaa 535

<210> 8556

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8556

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atgttttaat gttgtttcct taatatcatc aaatatccag ccagagttca aatttgcttt 60
gtcccttaag cacattttta caagattgat tggctagttc agatcaagag gcaaacaagg 120
ttcatacatt gcactggatt cacacgtctc aagtatcttt caatctccag gcttcccttc 180
ccttcccttt tcctcttgta atgtatttgt tgaagaatct aggtccctct gtagtcactc 240
ctctccccat tcccagcccc tggttaaccac ttacctgttt tctgacccta taattttgta 300
gggcccactt tgtactgatg tacttctgac taggtgtgtt tatgttcaag catcagagcc 360
aaggcccaaa cctctaccct ggccctcctt ctgctgtggc ccaactgtac ccagagctgg 420
gctctcccg tctccctgcct gttaatccta gaagtgggtg ccgaggaggg agaaacagga 480
agganggagt tgggganggc aacttggtac atggacaaca aggctgttcc acttcancaa 540
caagctttgg ggtaacttng ntccaaattg a 571

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<210> 8557

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8557

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gaataaactg catgtttatt ccaggctcgt ttagctggac gagcagtaca gacagggtg 60
aggctgactc catggccatg tgggcagagg tcaaaccat gatctctctt cctacagctt 120
cctaattgtc gcgatgttgg tcttttgaag gaggccccca cagagccgag cttgcttggt 180
tatctgggac tgctgctcag tctgagtagg ggagggtaat gaaccagtca ggcctcctcc 240
tgagggtgcc caacactggc ctagtcccca aggctgacga aacatggtct ggcctgaccc 300
caggacgtgg ggtgaggagg aacactgggc ataatatagt agcggaaca ggcaagcctc 360
tatgggtccc tcccccttag aattttaggg tagggaacga ggaggctaca gactaaattg 420
cagaactatc tgcacctggg ccttgagctt ttncctnact nccagtggag ccattctnng 480

```

gactgagttc atgangacta ccanaaggtg gcaagttcaa tctggncctg gctt 534

<210> 8558

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8558

gacggctctg cttgaggttt atcaattaat tgatcttttc taataaccag ctctttgntt 60  
tattctttaa agtgtttatac tgttttcaat ttcattgagt tctactcttt gttattgcat 120  
ctttctgctg gcattgggtc tatttttccct tcttttttta ggtttttgag gtggaagctt 180  
aggttactgg ttgaagactt ttcttttcta gagcatgcat ttagtgctat atattttccc 240  
atcagttctg ctttatgtgt ctcacaaatt ttatgttggt ttcattttca ttcagttcag 300  
tgcatTTTTA aaatttcttt tgagatttcc tctatgacca tgggttataa aatattgttg 360  
ttcagttttc aagtgtttgg tgattttccc attatcattg gtatttattt ctagttcggn 420  
tcttttgngg ttggagaaag tacttgtagt atttcagttc ttttaaattg gttgangctt 480  
ggtttaatgc ccanggncta tccttaaagtg ggggggtccgn gagcccctgg anaaactggg 540  
ntcngccggt 550

<210> 8559

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8559

cacgtagtaa cttatagata tatttggaac actgattatc ttttaaaaaa tgactactaa 60  
acagattaaa atgcagagtt cattaaaata cagaggatgc ctctggttct ctggtattga 120  
ctctttttgt ctactaagat aagaagtctg ggctaggctg aaaaactcag aatccaggtc 180  
tggggtttcc cagtactatg ctcccatctc ccagtactgt gctcccatctt ccagtacta 240

tgctcccatt tccgagtact gngaactccc ctttcccagt actgtgggct cccatttccc 300  
 agtactgtgc tcccatttcc cagtactgtg ctcccatttc tcagtactgt atgcccattt 360  
 cccagtactg tatgcccatt tcccagtact gngctcccat ttctcagtag tgtactccca 420  
 tttntcagac tgggctccca cttttnagta ctgggctcca cttccaagac tgggctccat 480  
 ttccaatact gggctccatt ttgcaagctt gganccccat ttccaagacc ngggttccca 540  
 tttcccagac tgggc 555

<210> 8560

<211> 419

<212> DNA

<213> Homo sapiens

<400> 8560

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 ggctgcatga aacatacttt ggaaattaaa gtgaactctc cacttgggca taatgttatg 120  
 tggncacatg gattggctta aaagggaac aagaatactt naacatttga tcaacagtag 180  
 gcagttgctg gacatttttag aaaaaggaga aatccatttt ttgaccatgg ctaaaccatgg 240  
 ggaaacagca tcacattttc ctgaaccacc ctaatcccgg cccctcaaga tccaccaggt 300  
 ntgcaacccc aaaccccagt cacatacatt aaatctacac ttttattttt tagntgtaaa 360  
 atgtgctttt tctcaatga actttaatca gtccaggacc taaaacnca cncncannn 419

<210> 8561

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8561

aaaaaatgca atttttattt gttgaacata atttgaaact gtaaaaagat ttctctgtcc 60  
 atcaccagaa atccagaaga cacctgaaga ggactgactg tttctttgcc acggggaagg 120

tgtgatgaaa caattaaaat cccatgcatc cctggccctt cctccacgtt gcccctcaga 180  
 atgcctgcag ctgcagcagg caggaggcag caggagaacc cgggctgtgg aaggcccctc 240  
 tgcctctctg ggaaagctgc tggggaagcc agaggtcaca gtgcattgga ggcctggctt 300  
 tcagccactg gccaggccaa aatgaaacat ctgctcaagt ctccccaggc accttgctgg 360  
 gggtagtggt gagaaagaag tggagaaaac tgatgctgga ccacaagtta tcaccctgta 420  
 ccttggcttt gaagtggccc ctgctggtac aggaacaggg tgagagtnaa agttaattaa 480  
 ttaaagccac atgctttaan gnnaaaaggn nccn 514

<210> 8562

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8562

ngttgctga ccttcacttt tatttaaata tagtgatctt ttaagagaat aaacaaaaaa 60  
 tactttacac agcaaatatt ttacataaat gtaaacaatgc atgtctactt cataattaag 120  
 caaaaaaact tttaggcaca agattttaaa aataaagaat gagacaatga aaccaagact 180  
 ggaataacag aagtaacaaa aactcacatt tcctaactct tcaattgggc ttgncttcca 240  
 acctattggt taaggcctga gtttcagaaa tcctaccttc cttgccaaat agaaacatcc 300  
 actttggctg natataacat tatccacata acacactaat tctctttcaa aataatgnaa 360  
 taaatatacc attcatacac acacacacac acacacacac acacaccctg ctgaaccagc 420  
 ctntcaaata ggaaaataag gattttggaa ttttcaaggt ttcctnccac ccaagcacat 480  
 tcccnncnt ttacccttnc nttggaaaaa tggg 514

<210> 8563

<211> 557

<212> DNA

<213> Homo sapiens



<400> 8563

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cattggaaac ttaactgatt ctttattcca actatcaatt ttataacttg agcccaatta 60
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ccccacata atgccttcta acaacatctt cactaacttg aaggtgatgg gctaaatcca 180
cagctagagc tggccaatct tggcttttcc caaaaggagt ggggtgtggc tcttctgtgg 240
gatctttgac ctttgtggct gaatgttggg cctggacagc tgcactgaca actttcaata 300
agaactgttg tcgtacagaa ataaaatttg gatccatttc cccactaggt aataactgaa 360
ttgaagttag gtctttgaaa aatgcatttt ttccttact gtcaaaaagt gaaagtggct 420
tcacggnctt cagagaaaac ctcactgactg catacaagat ggagcacagg atggantgg 480
gcttcaccag tgggtagtgg gatgtgcttt tggttaaggg ccanttcct ntggaaattg 540
gncctttcac ggaaagn 557
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<210> 8564

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8564

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caccataang gcnccactaa anggttttat ttanaacctc agcagcctgt anaggctaca 60
caatttcagg ttcactcagct tttaacta ttttcaacgt aagaatanaa gctattanca 120
aataacttct atcaaatnta aaaggaggc ctaggatntn caacatcttt gctttataaa 180
gatgcncta acatgaacta acttgtcaac ttanactnt tacagcagct caaacagttg 240
caaaanfaat gaacatcagn gatttctggc aataagtctg tcagtntaa nagagtaaac 300
aacacttttt taaagctaca ttctagtctt tcttcataca ctacacataa gaaagaaatg 360
caggttcaaa aataaatcac caaaagctt ttcatgtcc ctgagactta accttcagtt 420
caacccaanc angagataag ngtnctcaa aaggccttct gaatctcaag aatctggttt 480
ccaacttгна cttttntaa ggatagncaa taaggttcct taaaaa 526
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<210> 8565

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8565

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at tt t t g a a a a   g t a t t t a c t t   a g t t t a a a t a   a a t t a a t t g c   a a a t a a a a t   t a a g c t a c a a   60
t a t a t a g c c t   g a a t a a a a a t   g a c t a g a a c a   a a t a c a a c a c   a g g a c t t g c t   t t c t t g c a t t   120
a g t c a c a a a g   c a t g t g a c a a   t c t a g a a a a c   t t c a a a a t c a   a t t a c a t t t c   t t t g a a a a a g   180
g g g t a a c a g c   a g t t a c t g a t   a c a t c a c a a c   t a a t a a a c t t   a t a a t a c a a g   t t t c c t g a c a   240
t g c a t t t c c t   g a g t g a a c c c   a a a t g a t c a t   t t t t t a a a c   a a g g a a g t t t   c g a c a g t t g a   300
a g t a a a a t a a   a a t a a t t c a t   g g c t t c t a a g   c a a c a a g t t t   t g n t t t t t a a   a a a c c a a a a g   360
a a a a t t c a g a   a c a g t t t t g t   a a t a g g a t a a   a t t a a a g g n a   t g c t c c a c a t   a t a a a a c t t t   420
g c t a c a g c a g   t t a a g t a t t a   t a c a c t t t t c   a a a c t a a a g g   g a a a c a a t c a   a a a t t t t a a a   480
g g a a g a t c c g   g c t a a c t a a a   a n g n c c n g g t   t c t a c a g g g g   c a a a a a a a g a   a t t g g t g g a a   540
g g c n

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544

<210> 8566

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8566

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a c a g a a g t a a   a g t t t a t t a c   a t t t g a a a c a   a t a c a g c a g a   a a c c t c a a a a   g t t t a c t c a t   60
a a a t a t a g t t   t a a t t c t t a c   a a a t c t t c t t   t t g a a a a t g c   a a t t c a t a t a   t g c t g c a a c c   120
t c a g a a g t t t   g a a t t t g a a a   t g a a a t a t g a   a g g t a g t a g t   c a g g g a a g t c   a c a t c a g a g t   180
g c c t t g t c a a   a t a t c c a a a c   a a a t c a g c a c   a t a c c t c t t c   c t t g a t a c a g   g a g g a a a a a a   240
g t g a t t c t a a   a t a t a t c c a a   g t g a a t g c a g   a a a a a t a c a t   t a c t a t t t g a   g g c a g a c c a t   300
g c t a a a a t a t   a a t t t a c a a t   g a t t a g t t t g   c a c t t a a g a t   g g t t a a t a a c   g c a t t t a a a c   360
c a a t g a a a t g   a a g g t t a a g t   t g a a t t t t g t   a g t a t t t g c t   c a g t c t c t g t   c t a a a c a a t a   420

```

gttcatctga aaagtttggg aaaagccaat acctgatctt ctctttatgc ttatcatttc 480  
tactggcatc ttaaattgcaa accaaatcaa tccgcatcag aatttttacc ttttaaaatg 540  
gaaactaatg gc 553

<210> 8567

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8567

agctgcaaca gcactttatt gggatctgag tctacagttc acatagggag gtgaagccgt 60  
gggagaagca ggggtaaaaa aaaaaaaagg ggggggactt cacccttag ggacagctgc 120  
ttccaaacct aacaaaaccc cagggttaagt cctcgtgctg ggcctcgagc cagcaacct 180  
agtcaaattc caaggcaccg gtcagcatgt ggggtcaagg gcccactatg gggacataca 240  
ctcaagagga tgaaagctct ttagcttcag aatcagattg ccttccccag accccacccc 300  
aaaacaggt cctctcccat ctccccctt acagtgacaa aacacaagcc cacatcccag 360  
ggcctggagt atttgcattg atttgcattg acggcaacac aggtccagct aaggcctttt 420  
tctacataaa gtgacatcag tgcanggctg gggaatttgc tctactgggt gaaagatatc 480  
tgaggggccc caaccagnen ggccgagncc ccttcaggna gttantacc ttggaacttg 540  
ggctggccag c 551

<210> 8568

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8568

gngattcttt ttttcattga aaatgtcaat ttanaaaacn caaaagattt cacactttat 60  
tcagacaaca ctgagagaag aaaagggaag agtgagtagg ggagatgggg agatccggct 120

cccaaggatt tcaggaaaca cagnnggggca cctgatctag cacacattca gagggtaggg 180  
 aggggaaggg atctagctat actctgggca tggagcaggg aaggtcgtcc ttgctatgga 240  
 ggaaaggaga gaggaaggac agaggaagag tgggtcccca tctcatctcg acaatntcac 300  
 aagacaggag tatatcgga cctagctacc agggagggat ggatgcaaga agggattcca 360  
 ggatctaaca gaccttgac actctggatc tactctcaag aaacaacctt ccccagagaa 420  
 tcaggatctg ggggaaatgg ngggngtcag ccaatctnct ttagagaccc ccaaagcaac 480  
 ccnnggtttg gggttcctgc cccttcccca aaatgnggga aatgaaaaag tttggccatg 540  
 gggaat 546

<210> 8569

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8569

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 gtaaacacaa ttactgtcat aaacctagat ataccttcaa ggattgaaga ttgaaagtgg 120  
 ctttgtttta gttagttacc ctgtttgcat atagtgcaga aaaaggtctt catgttagca 180  
 ctatgtacat taagaagaga tccaaattac aagagaggca gataaaattt gaattcttta 240  
 agcattcatt aaacgaagtt ttggagtaac atccacgttt atcttccttt cactaatcac 300  
 gtccctgtt aagcacatca taacaacagc acagtgaagt gaatgatgaa ataagagcat 360  
 tttgatacac tagaaaacag tgctcagtga gacatttaca ttctatttat atgattaaac 420  
 atttgatcat acagtacctt cctacaggat tactggctaa ttttggggtg ggggttatac 480  
 tattagangn attacttacc tggaaacttn ctccntaat tgcaaccttt ggggccttta 540  
 ttttatgg 548

<210> 8570

<211> 261

<212> DNA

<213> Homo sapiens

<400> 8570

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cacatgaagn ctncatttat tctgggatgg gttagagtaa gcctttgagg ctgccatcag 60
gctggctgag ttgntgcca acattgtatc cagcagtctc aggcccgcac agtgcacanc 120
cagcatgggg ctnacaggtg cagatggaat ccataagctc ccancntgc tgcaaaggcc 180
aggcctaggg gtccgggtac atgcantgag tccttggggc anggccagcc ctgctgacta 240
cacaancang gttggtggng a 261
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<210> 8571

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8571

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ataggtacac gtctatttac tgcacaaata tcaaatgtgt acatcgatgg taaaaagttg 60
taaactggct aacagtcac agcacttaag tacaatgggt ctatactgac acttccattc 120
tcattttaag agcttatata tttaattgat gactgctctc ctcatcaggg acatttaaga 180
tatggaaaag gcatttatat acacacgcat gcatgcacat atgcttaacc ttacaaactg 240
aaaaagtaag cccaagcatg attaattaat tactttgcct ggatcaataa atactagtct 300
caaatgttaa gtgtactaat aaggacagaa gctatcagtt acataaatta tcatgttgct 360
acctactgat gctccatttg ctaatgcatg ttagtcagtc tgtagacttt atccaacaca 420
tacatagaga ttatTTTTTT ggttgnttga aattctcagc agatcaacag atctcttttg 480
gacatttctc ttccattact nttangatga aaatggaata cctnttaa ataaaatttn 540
aaatnccngc c 551
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<210> 8572

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8572

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ccattgaaag aatatattt ttgcagctgt taaaagacat ttttcctaa aaaaagaaaa 60
gctgtgcttt acatagcaat cttataaaag aaatgctaga atcagaaaac catcatttta 120
ggctgggtgc agtggctcac acctgtaacc ccagcacttt gggaggacga ggcagggtgga 180
tcacttgagg tcaggagtgc aagaccagtc tggccagctc gatgaaactc cgtctctact 240
aaaaatataa aaattagcag agcacagtgg cacctgcctg taatcccagc tactcaggag 300
ggtgaagcat gagaactgct tgaacctggg aggcggagggt tgcagtgagc cgagattgtg 360
ccactgccct ccagcttgga caatagagca ggatttcgtc tcaaaaaaaaa agagaaaang 420
aaaaccatta ttttgcaata gccaatgtta taatctacac aggcacagac tatcaatgct 480
taaaatcatt ttaaaaggac atcttaaggg gtaattnccc gaaatttgga tttttgaacc 540
cttntgtaat naaaattcn 559
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<210> 8573

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8573

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ggaaatcaag ttttgttttt atatgaacag aagtagacca tctagaaata tttcagttta 60
tttaaattgt taagtagaat atgaaaccga attttagct agtaccagag aatggactta 120
actgtttggt gtttaatgag aacagcttct acacaggatc ccaagagact tacagaaaag 180
gggcaaagcc ctaatatata gcaaataaaa ctcatgtttc aaacagatta taaaaaatt 240
gatttatact tcatttcctt tttttgatat ttagaaagtg cagatttaac aaaaggtagc 300
catatccttt ctatgtacaa tgccgattat aattatgcaa aactgtcagt ctgttatcca 360
aaaatcccag tgtttagctc tccaacctta agtcatggaa ttgaataaga attaaagagg 420
gttaaaataa aaaagctaata gccacattcc agataaaggg aagcaccaat acattaatct 480
aacaccagta ggttaaccct aacntttcaa aagcttaaca tcattcatta tatttttagt 540
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ggaaaatagg gatnttc

557

<210> 8574

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8574

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ctttttgaca gagttttgct cttgttgccc aggccggagt gcaattgcta tggcgtgac 60
ttggctcacc gcaacctccg cctcctgggt tcaagcaatt ctcctgcctc cgagtagctg 120
ggattacagg catgtgccac cacgcccagc taatTTTTtg tatttttagt agagacggga 180
tttctccatg ttggtcaggc tagtctcaaa ctcctgactt caggatgatcc acccacctcg 240
gcctcccaaa gtgctgggat tacaggcgtg agccactgcg cctggcccgg ttttactttt 300
aacaagcgtg agagcatctg ttgctgagct atgtgggcaa catgcatgtg aggtgcggcc 360
ctgccctcca ggacacgcag cttcatgagt agagaagaaa tcttatccaa gggcgaagta 420
gcaagaacac agcaaacc aa cgcacacaga agggcgatcc acaagtcaaa ctggcanatg 480
gaaacagctg agggctctta ntggctccca anggaaaagg cgggctantc tgagaactga 540
ngcngaaggg acttgctggt t 561

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<210> 8575

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8575

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gattcaaaca agtataattc tcaagttatc acaaaatttc ccacaaaaat ttacaatcag 60
caaaatagtt tccttatttc tcatgtatca ttttcatata attccatggt ttcactaata 120
ttatatgtta caataagcct ccattagtcc ctcaaaacga tgatataaat aagtctgtac 180
aacctagcat agagtaaaaa actgaaacca agattcccaa cgtttttcat agcagccggg 240

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cacactttgg tgacccaac gagaaccctc tcggcagcag ccaggagctg ttcaccttcc 300  
 agaagcaggg cctgtggcag cctaacaggg agaggccacg gggcccaaaa acgcaacacg 360  
 tctcaaggca aacccgaggg aggaacttgg tctgggagga agagagaact cgctcctcaa 420  
 ccaccccaga cactggagtg tcaggaaagc actgagctgt tggggcacac tgnccagccc 480  
 ggnccagcaa gctaaccagt cacagnttca ccttcaactt ttcaaggagc aattttantg 540  
 gggaanaacc ctt 553

<210> 8576

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8576

gtttgttctc tagttttatt atttgtcaat ttcccaaca caggaactat aactcatttt 60  
 gaggattttt ttcagtgcac ttcgcagcaa aaatgaacaa gggaatcatt aaaattgttg 120  
 tacacaaacc aactcttttt cttataattt acaatttggt gaaaaaatta ttgttttgct 180  
 gttttcatcc tactaacctc tttaacagaa cacaatttat cagagcacia agcttaaaact 240  
 tcttatgatg atgcaacaga cacagccacc tacaatggct gataaacaac aggtatgtta 300  
 cacacactga ttggaagacc atatcagaaa aaacagagta aggcaccact cttgggaaat 360  
 taaggtagct tgcagtaaca agtggtgagc accataataa gtaggtgctc aataaatata 420  
 tgaatgaatg atgaaagcca taattagctc tattctttta attgccagca attcttcaac 480  
 ctcaacaaaa atacttattt aaaaaaagga ttgnacctgg atccacttnc tggacntttt 540  
 ttccggaanc cttttantt 559

<210> 8577

<211> 558

<212> DNA

<213> Homo sapiens



<400> 8577

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catctttaag attctatitt tctagaacca cttttggcac caaaatctgt atcagtcaga 60
ttcaactaga gaagcagaac cagtagggga tatattgaga ttattgcaa ggaattgact 120
tcagtgattg taggagctgg ccagtcatgt ctaaactctg tgaggcaggc tatcagaagg 180
gcagactgtc aggaactntc gccaagcact gggctgctgt cctcaggcag aatttcttcc 240
tcagggaac ccttagctct gtcttttagg cttctgact aatcagggtca ggctgaccca 300
gattatctga gataatctca cttacttagt caattgggaa tggacttctg tcacatctac 360
aaaatacctt cacagaaata cctagattag tggctgattg aattactggg tgactgnggc 420
ctagctaagc tgacacatnc naagaccatt cgacccacca caagccttgc tgaagcttaa 480
gggctttngg acaagcctta acctttttcc actgggggtcc cgggatgggc agnnttattt 540
ggctnaacct aaaatccc 558

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<210> 8578

<211> 522

<212> DNA

<213> Homo sapiens

<400> 8578

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gtctcgngcc attttattta atgcaaacac tagacagttt acaagtcaca cctggacaca 60
agcacgtgaa cagatgtaca gggaattctg gaattttgag atcagtcacc atttcttct 120
cagggccctg gcactgaacc ccagcccctg tcccagagcc tcccctntgg gtcccacccc 180
anaagccacg cacacctctt tccgcccage tttatctttc cttgagctgt gacttcaccc 240
agcatgtgct canagttgtt acaaattttc tctgccaaat taagctgaca gagattggcc 300
actttcaacc agtcctttca gtccactgtg tctcccctct cgcttgggac aggcccatgc 360
tggccagtgc aaccttcaga tagacacatg gtgaccagag cccgccaggc ttntgcaggt 420
ggcagtgtcg agcaagtgtg aagatgtctg tgggaaggag aagcttctgn aatgaacgtt 480
ntggaaacag aaagntnaag ggnctttcan gcattttcag gn 522

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<210> 8579

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8579

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aacagccttc accatctttt attcattctg ctgtgataca actaaaatgg ccagtaaatt   60
ctcccctggg tctcaggtaa cagttttcca aaagtgaagt atcactttct ctgcacagtg  120
gtgaaagccg gcatttggat gggctggatc ggggtggacag gctgaaacac tggcttcttt  180
ctcacttcan agtgtgtttt cactgcaggg agcagctgat tccttttgat gatctgtaag  240
gccagctgag tattaccatt ctgcagttca aggtagactg ccagcaagat ggcctcaggg  300
ggcacctctt taggatggat cattgaagcc gcctgggtgga gacactttcg ggctttgtca  360
tattcgctcc tcaggcagta agcgtgcca aggttgaaca gcatcacagt cctggcagag  420
ttgacggaac tggggtagca ctgaggggcc cgcttaccag angattccat tggttcattt  480
tcaccttgct ganccttggg cctgctcatt tgaagaaaaa cctaaggnga cattagtgac  540
atttttccgg g                                     551
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<210> 8580

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8580

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gtgaggttga aaagtcattt atacagagga ctttaatgag cattcagatt tttcacttgn   60
gatataattt acatacaaaa aatagcataa caaaaatata ttggaatata gtatagatac  120
atttacataa acattgcatg aatatcacag tggatatgta gagaagggtg ataaacctta  180
aaatgtaaaa tatcaaagga tcaaaaacat ctaaaactga cctggaatga attatttgta  240
attttaatat tctataaatc taagtacctt tttatgttaa acttaaaagc attataatgg  300
ttattaaata gaacaggggt caagcaaact tttcccagaa aaagttagat agtaaatatt  360
tcaggctttg tgagttacag agtttctatt gcaactaatc aatgctactg ctgtagtgca  420
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aaaccagccn taggatacac gtaaaccaat gagentgact gggttcata gaacttattt 480  
taaaaatagg cacaggnccg aatttggtn ctaggaccata nttgntgacc tttnaacaaa 540  
naaa 544

<210> 8581

<211> 572

<212> DNA

<213> Homo sapiens

<400> 8581

actttttaaa agttttattc agcaataaga ccataatttt tcatatttaa ggagtatgaa 60  
aaatttgtgg agttttaaaa gctgaatata tgtagcgttg gatcaaggca catacaagac 120  
tgcccaaagg gcgtacaatg cactttggtt tttgttgaa aaaaaaaat catggcaaca 180  
gaaaagtgat atggtttttc aacaagtaac agctcacaat tcagtaggaa gctagaagga 240  
aatgttacat tacgagttca ttatataata tctggaaaat tgtgacagta atgggcagta 300  
ttcttgatct ttgtaaaagt aaattgaaca tttatgtcag tgtaaaacc tttgacataa 360  
accagatcta aatttgatgt ctagtattta ttttcttta aattatctct tatttaaaga 420  
actactttct ctggaatggt gaagggaatc gcttataatt acnttcattt ttaatatgcc 480  
tnaaagggtc tctgacatnc cttatgataa aacctcttaa cccttaccac ttttgggggtt 540  
aaaatcactt tttaaaaatc ngganggggt ng 572

<210> 8582

<211> 493

<212> DNA

<213> Homo sapiens

<400> 8582

gcaagttgaa tattttattta aaaataaatc tcaaaaatat ctattgacag tacagtaaga 60  
ggggcatgtg caaacaacag aaagggggaa gtcagtcctg ctgtgggaag cccacacatc 120

agtggtgttg agcaaagttc acgaaggcca tgggctgact gagctgtggt gtacgaaatg 180  
 acattcagct aatactggac tcggttcacc tttgacacct ggagaggtgg ggaagccagg 240  
 ggggtggggag tccagctggg gacacctgtg ttttaggaagg gggcggccaa gggatgagcc 300  
 tttgggagag gccccgtgtg gcaggagggc tcatttcaca agccaacagg cctctagctc 360  
 gccgctccag gtggatgttt ggtgacctga agggcccttt ccagtccaag ttggctttgc 420  
 aatgggaggg gtaggtgcan cnagggtncn anagacagaa atcctcttta aaggaaaaac 480  
 cnaccaccna acn 493

<210> 8583

<211> 429

<212> DNA

<213> Homo sapiens

<400> 8583

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 agacactatg ccaggggctg gcgatacaga aatgagtaag acatgatccc tggcccctcc 120  
 catccctgga atgtctacta ggaagaagct gctagaaaaa gacaacatgc tacttttaag 180  
 ccaagagggg ccagtctccc attccagctt ggtacacact gaacacattt gaggcttatg 240  
 actggttctt ttacttacaa atattgttta gacacatttt caaatgtcac accaatcaat 300  
 aataataagg aatggatttt atctatattg acagttcttt naaccttaag agtgaactgc 360  
 tacaggtaag attcanticac atttttcagg agaaagctnt tngacnaan atgcttnggn 420  
 tatctaata 429

<210> 8584

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8584

caattctcac aagatatttatt tataaataat gcaataaaaa tactagtaag ctctttatgg 60  
 agttagacaa attgatacaa aaattcatgt agaaaaataa acacggaaga atagctagaa 120  
 cacctgatat tctagtaaaa gaaaagccat aaggggtgtc tactcctatc acatattaaa 180  
 tcattctata aaatctctgt aattaaaact gaaatattga cacatgaata aacagaaaga 240  
 ctagtggaag agaagagaaa tctagaaata gacttaagtc cataaggaaa atcagtatat 300  
 gatgaagggtg ttatctgaag tctctggagc atagatgggc tctctaatta aatgggtgctg 360  
 gacaactggg tggccatttg gaaaaaaggt aagattagaa tccattcctc atgccatnca 420  
 cacaattaac tccaaattta aagaagaatg acaattgaag aaagtgtgag agaattcctc 480  
 tataaactca gtnttgagag agcnccgnaa acntaaagga ctgatcaatg gnetccgtaa 540  
 aaaattaaa 549

<210> 8585

<211> 509

<212> DNA

<213> Homo sapiens

<400> 8585

gtgattcagg gccgagcagg gctccctgga agccccctct tcctgccccca actttatttt 60  
 ggttctagaa tcattccagt tggcataccc ggttcccacc acggctgtcc tgggcacaca 120  
 gttaacatgt catgcagtta gggggaggga gagaggggag agggcagggg gggagtcagt 180  
 ggccctgcacc gcacagccac tgggttagag aaagtcgggg tctcccaggc tgcaaagcct 240  
 tgtccagcca tgtgtctcct ggccctgggc tgacctcctg ctgtggccat agggtagaca 300  
 gcctggcctt ggggctgggc catggctgtg tcaggtaggg aaagccacca tcctgccttc 360  
 agtcccctgg gcccttggtc tanccctct tccccatat cactggggat aatttgnttg 420  
 cctgggtctn catagctcac cagttatgga ccaaangaac aagggcanc accctgaggg 480  
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<210> 8586

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8586

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cagattctga ggtctgtttg tgtttaatca gacaatatgc aaagtattta caaccaattc 60
tggtatcccc cccaccccc gcaagtctgg gccttggaaat ttcggagccc caggcccggc 120
ccagagccag ggggtcccca ggcctctgca tagtcatctg aaatctacaa aacactgtta 180
aaaaaaaaaa aggacagtat taagacacct tacacaaagg gccttaggca gttggagagg 240
gatttgagag ctgctgggg tgagtgagcc cagatttgac tggaatggac gggagaagac 300
ttgggtaata aagacgtatg aaaggaaaag ttgaaatttc ataggcaggc actgcttggc 360
ctccttcccc actggcaggg cctggctggc tcaagaacct ctggcagtgg gaatgttatt 420
gctatgatga gggggccatg gtgaaatgtc aacatgtttg ggggacggac cggggggaca 480
ttttacatgg taaatntggc ccncatgaga cccccccact tcccancctc ccccnncnccg 540
gg 542
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<210> 8587

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8587

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cagtatacac tctctttatt atgagaatga aaccaaataa taagcaaaat acatcaggaa 60
tttcaaattg tactgcaaag aaggtcccag ctggtctctt ctgggagtga tctaactaac 120
ttaagctgac cctgtgactg gctgaggata atcccttctg tccactgcac cgtgcaatgc 180
cacaggtcat gagatggatc gttcctcttg ctctgtgtcg tctgaagcaa gtcgaggccc 240
tacttctggg tccgcccctc ttccttgggc ttagatttgc tgggttagta gtttgctact 300
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cctttagtac tttatccacc tcctgtttac tgagatcttc tccacactct tgagtcaacc 420
cgagactgga tcatgtttcg gcgtaccggt taatttttgg aaaaaatttc aagcaaaacc 480
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tgatgatgct gatcactcat gctncagan ttccaaangg ccaaacacct ttgntcatc 540  
cggggaagca gcaant 556

<210> 8588

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8588

gttttattta ttcacttaca ggaaatataa acacaaattc taaaagtgtg aagttgcaaa 60  
cgacaggcaa gttcacattt caattaatgt gaactgaaca agagttaag gtgattttta 120  
aataccttcc acgtagaaa atccttcttt cttaaataag tttcatata aagccaagtc 180  
cttgcaactt aacgacggtt ttacagtctt aagtgatttt agaaagtgtc cttgtttcac 240  
tgtagttgcg tctagtccat tttcttgtag agccagcaaa gcagcttctg tgcanagggt 300  
tctaagatca gctccagaaa aaaaacaggt ttctgctgag aggttttcta aggagacatc 360  
angccctatt ggcatggttt ttgtcagact tttaaaatag aaagcctgcc ttgggatctg 420  
ggaggtgggg atatagatga tcttatctaa tcttccangt tcgtaacaaa ncagtatntt 480  
aacacatcag gtctatttgn tgcttgcaat aatcntgaca cttnggggta aaaaacttnt 540  
tgaa 544

<210> 8589

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8589

gcaaggaagg aataagggga tttattgaaa atgaaagtac actccacagt gtgggagtgg 60  
gcctgagcac aggggctcaa aacgcctttc ttgtttttgt atatagaaaa tatacatgct 120  
ttctcatcta accgattttt tttttttttt tttttttaag acagagtccc actttgttgc 180

ccaggctgga gtgcagtagg catgatcttg gtcactgca acctccacct cctgggttca 240  
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 ganatggggt ttcacatgt tggccaggct ggtcttgaac tcctgacctc aggtgatcca 360  
 cccacctcgg cctcccaaag tgctgggatt acaggcgtga gccaccgcgc ctggcctcat 420  
 ctaaccaatt tgggattctg gttggagttc angaaaaact aaagttccca ttactttcag 480  
 aatatttttna aaataaaaaa tcctgatgac ttgtgangga aaaggaaaac atttnaaatc 540  
 ctgactttct t 551

<210> 8590

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8590

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 attacaatga catgagtaac tgtacagaca gaccccaagt gcagaatcaa attgccctaa 120  
 gtcagaacat ggagcaaccg caactccttc gcacttgtgc atgtgtgtgc gctcgcanac 180  
 gcacacacac acacacatat tctctctctc tcttatgcac acatccatcc acatcccaac 240  
 aattgcaggt gctaagtttg gacataaccg agggactcct ccctgacttc tgtcagggtcc 300  
 tggaaagaag aagtaataaa tgaaaagcag ctgggactgc tcgatgcac tctcctcttc 360  
 caacaatgac ncgagagaagg caagacatac actggggcag ctacttcctt ggcaaaaaa 420  
 tgaacaggca acaagaaggt aanggagtgt taagttaatc tcanggttaa accacttttn 480  
 aacaccncca aaacagtanc angcaggaaa aaaaaaacgg ggtnccaaaa cttaac 536

<210> 8591

<211> 538

<212> DNA

<213> Homo sapiens



<400> 8591

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ggtattaaaa tgtctgtgat tacttatttc tcagcattca tctggtaact taagcagcat   60
gaagcaagag ttgcacttta aaaaatgaca agaaaatagc tattcattta gtcgacagag  120
taaggcccat ctcatttcca ggatcactag tttctgctta tgacggggtg agcatccgcc  180
agcgcggtga ttgggaggcg cccctgtgtc tttaggctga ggcagtgcc atagctgcag  240
tgcctcgagt ttccggagca accgcggggc tctttcttga ggagtcttgg gaggggccgg  300
tggcctgcct ccccatccta gatcagcgag gtcccaanaa gtgccgtatt gctgcggggg  360
aactgtggag tgtngacacg ttccgaggtg ggcttgacat cctgaggctt gggtggtgtg  420
aaagggaan gaaagaaggg caggccccg ggcttttgct ggctcttgct ttttaaggtca  480
ggncntggg tctgcanagc natngcacg gggctcttgc caaccnngg ggnttccc  538

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<210> 8592

<211> 549

<212> DNA

<213> Homo sapiens

<400> 8592

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ctttttttga gacagggtct cccctctgtg cccaggctgg cgtccagtgg catgaccatg   60
tcccatcgca gccttgacct gccaggctca agcaatcctc ccatttcagc ctcccgagta  120
gctgggacta cagggtgtgca ccaccacgcc cagctaattt ttgtattttt ttgtaaagat  180
agggtttcat tatgttgccc aggctggtct caaactcctg ggctcaagcg atccaccac  240
ctcgatttcc caaagtgtg agattatagg cctgagccac catgcctggc tgcagatcct  300
tcataggttt cttaatctta agaacaaaaa gtcacctgg aaagcaagaa cacatcaatt  360
tggcagtatc tggctactaa aagaactgta tctctggagg caaagcatgg gctctaataa  420
acccacaaa gtattggccg ctaattccca aatattcctg actggctctt tcacaaagct  480
taaggagggt tcaattcaaa gaacatttaa agccctttgg cttggatagc agacagnaa  540
ccagacttt                                     549

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<210> 8593

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8593

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ggaattcaga ttttttattt ttggctctta ggaagtagtc agcaaatact gtataatccc 60
tagtagggaa ccatgtcata aaatatattg acatttctgc aacaaagaat cacactaaaa 120
ggaacacatc ataattaccc atagcttcct atcagtgtaa gttcagggtca ggtttggttt 180
caaatggggtt atgaaaatac ttttggtttt cagagcattg ggactttgga aatgaggacc 240
tggatcatcc tttattaggg agaaatagcc ccaggagcca cgtctcagca attccatgga 300
aacacaggtt tctttgccct caaaattccg ttcctacctt ctttgncttc cttcccccaa 360
agaaactgga caaaaaaggt cagaactgna tttgntattc atacatttgc gttgatttaa 420
atcattacgt acaatttcta cattggatta gaagaatgac acagggggca gcacactttt 480
gcagnccagc ctcatcctg acctggagca gggcctatgg tggcaaagga cgggntcct 539

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<210> 8594

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8594

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gtggttttta tagactttat attttagagc aatttttaggt ttacagcaaa attgagaggg 60
tacagagatt tcccatatag ttgttgcccc cacacatgca tagtctccac cattttcaac 120
atctcccacc aaagagggtac atttgcaata attgatgaac ctacactgac acatcattat 180
cactcaaagt ccacagttaa cattagggtt cactcttggt gttgtacatt ttaggggggtt 240
ggacatatgt acaatgacag gtatttataa ttatagtatc atacagagta gtttcgctgc 300
cctaaaaatc ttctgtgctc caattattcc tccctccctt cccccacca ctgcttttta 360
ctgtctccat agttttgcct tttccagaat acatcccagt gtcatatagt tggcatcatt 420
taatatgaag ccttttcana ctggtttaat taagaggctt ccnttaagtn ccctgggaac 480

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tttttaacct ggggnacccaa aatggcatan cttgattnag cccctgaata atgactactg 540  
caccacaatt ttn 553

<210> 8595

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8595

gctgcttaaa aaatgcatta atgttactgc tttattcaca ctaattagaa tacatacaca 60  
aaaaatgtgt atcatatatac actttcaaaa atttccatgt tccatgagaa ctatgtaaac 120  
antgcaaaat gttncacta cgtaacaaaa gaaaatcagc attcccacat agtattagga 180  
aaatatnngg ataatctgaa tttatagtaa aacaaagtga tctgaatttg tagtaaaaca 240  
aagtgaata ttacaaagca gtcttgtcat gaagtagcct tatataactc agaagcagca 300  
catttcatac tticaaacac ttgtgtataa gtgaaattaa tagaaaaca aaagaagaag 360  
aaaaaaacct ctactttggt tttcacatta ttggacttna gcaacaaggc aagtgcacag 420  
gtanccttgg atgaccaaaa tggaaaacct tntnactnng cttggtttct ctttctggna 480  
aatgggccgt gcttaggaaa agcggtttcc caaggacntt ttggaaaatt aaggnggcat 540  
tttcactt 548

<210> 8596

<211> 519

<212> DNA

<213> Homo sapiens

<400> 8596

aaagttttat aaaaaactat ttcttgttct ttaagtaaag aacactatac aaagaaaata 60  
tattngaaa taccacagag acatggnttt tttttccct tgaaagatat gtccatccta 120  
ggaaatgggtg ggggggtgat gtggggggtg cagagtaggg cctagtcctt gttgncattn 180

ttgngngngn tattgattct ggaaggaccc tcgggtgccca atgaggctct ctaagccata 240  
 atcttctgaa tgcagggcat gcagctcctt aaaagacana cagccctggg agaaaganaa 300  
 gggaatatgt tctgaattca tttgactcag tttctcgcct gccaaagaaat ttcttncaag 360  
 cagtgatggc tccttactca ttcngagatt aagaangatg gccaatTTTT caaaatcaaa 420  
 tttgttcaaa acttnccatn gtcccccagg gatcaaggtc accctccttn attcngcatt 480  
 aaaagtnttt catncttccc gttcttctcc ctctntta 519

<210> 8597

<211> 450

<212> DNA

<213> Homo sapiens

<400> 8597

ggatttgttt ctctttttat ttaggtactt tctccaaaag tgattttagt ttgtatggaa 60  
 aatcttctga tgctttgatg gtacatattc ttattaatgc cctcacatta gaataactat 120  
 tttcagaaca taaaattgta ggttcaaagt ttttttcagg ttcaatttca cattcttgag 180  
 ctaggcatgg tactgatggg tttcaccata acatacacca atgtcctttt gtctgtgggc 240  
 tcccatccag cctgggtggc gaagtcatct acaggtaaga ttgaccaaac ctctgaacag 300  
 gactgaaaaa aatgttatct tcagaaaacc agccctcttg tacactgctg ctgtgaatac 360  
 aaattgatta acttttctgg atggcantct accaatgcag atcaaacatt ttaaaantcc 420  
 nttttnttt gaacnaattt tttttcngn 450

<210> 8598

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8598

gagagagaaa ataattcact ttatataaat aacagctaag aacaacatac tgtgaacagt 60

ttccagagtt tgaacattca gcacaatcaa ttcttacttc ttgggaaaaa aatatcttac 120  
 ctatcttttc tgttacagta tgccttcttg gagaaaatat tttagtggta acatcatttt 180  
 ctggggcatt tggttaattt tgaaagatga ttatgccaca tgaacaaaaa aaaaaaaaaa 240  
 aaactggcag gaggaggagg gtcctaggcc attctggaag caagctgggt tttgcattat 300  
 tcagagtcaa ctattaagct gacttatatt agaatggcga cagataagag gcaatgagtg 360  
 acaccaggac atgcacagca cacagagaat atggcnctact cttggcttcc ctgcacagat 420  
 taaacataag angcttggtg gaaagacatg gggaaaggng ctatnggggc caccntttgg 480  
 aagcatatth cccagngact tgggtnttgc tatgcaacct ctggaccaa aactgggaaa 540  
 ggcccctttc ccccacag 558

<210> 8599

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8599

aattttgggg ctttattata atttttcttt ccaagatgct acatagtcaa acagaactgg 60  
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 ttcgctgaag agtttctctc ttcccttgct cccacccac aactgctggt gccctcgctt 180  
 ctaaccctct gcagcccgat ccatttgctc tgactccagg ctaggtcccc aaggggaggt 240  
 caggctcaga cttggacctg ggcgctggaa gtgtgagtaa tggttgagag gtggtataag 300  
 aacaatctag aagactgact actcttcatt aaaaaaggta acctagagtt gactgtcact 360  
 actgagaatt tccctcccta tgacagttgn tatttactga cccagaaaaa acacttctgg 420  
 cagctcttct tcagcatccc aataaacccc accttcacat gacagactnt tcagaaacag 480  
 aggacccaca gccttcagca gcaatnccag ttaaccaaca gagttaacaa cacgcaacat 540  
 taactgnctt ttgggaaa 558

<210> 8600

<211> 425

<212> DNA

<213> Homo sapiens

<400> 8600

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caaactgaga aaaagcagtt ttaatagcac acacacacac acattcatag gactttaaca   60
agatgtagta taaaatcttt aaaaaaaaaa aaaaggaaag aaaaaaatct gtatttactt  120
cctaagagct ggtggattaa ctggctgaca ggactgccca ggaaaaacaa atgcacagat  180
aatgaggtgc gccgacactg ttcattgagta aggaataacc atggatcatg ctaactgctc  240
tacgtgcccc gccgcctgga ccctactggt gcctccttag cgacaaacca ccacagtcac  300
cccctaattc tccaactcag tagcttggtt aatgggctac ctcttaaaat tttcattttt  360
aatttaaaaa ttactctngg nttaaagacn ccncacnttn ttactggcca gtcccnacca  420
attat                                                                    425

```

<210> 8601

<211> 458

<212> DNA

<213> Homo sapiens

<400> 8601

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caatgtcaaa atgtgtactg cactttataa aagcatggat aatattaaag gatcacaaaa   60
ggcagcatta gcattctcta tccaggtatt attaaatctt tttatcccat gccccctca  120
aatataggag aattattatc tgataagcct gaaacgactt ttttaatacc ataacctaaa  180
aagacacttc ttacagggtg atgcaacttt ggctcagcaga aacacaatac gagcctctgg  240
cctagctaag gcactctatt ctgaaagtac ggaaaacatg cacgtatgct ccttatcatg  300
gcattgctcc ccaaaaggca gctcactgta tgctggggag aaaggctggg gcatgaagtc  360
accacaata tcatgcataa gcctgaaaga cctttcatac tttggaaatg ttatagtaat  420
tgcatgaca taaatgcnca cagntntntg nantgang                             458

```

<210> 8602

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8602

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caacacaatg gccctgcctc ccaccgnttt atttctttcg gtttcggatg caaaacaaaa 60
aattttaaaa gaaaatgtga cttcaaagga aaagaacaaa tttccaaaga cttggggggag 120
tgaaggcaga gccttggtgca natggacgag gtctgcagac ggagggcaga ggtggtggaa 180
ggggccaggg gcctgcaggc ctccccctgg aactgggact ggtctcggtc tgctgacgtc 240
agggtcagct cccccgcgga gctgacttca gcagcccaca gctgtggggc ttcagcagcc 300
acaccagccc agcccagccc agctctcgat acgtttggtc tttcatgctg aaaaataaat 360
aataaagcct gtcccggtgc tactgcctcc cccaactgca cagacgccag cctctaggcc 420
tgactgcan ggaggtggaa aactggcac cagcccggca gcccctacan gccccccana 480
tggctgccta atgcctctg aaactgcana tncctcaact tggccttccg gccttgggnc 540
annt 544

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<210> 8603

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8603

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gattgattga ttaatttatt atttttaaaa acttggaat tcataaacta ggataatcac 60
attctccttc cccatctctg ggtagtgcca tcattttaat aagcaatgct caaataacag 120
aatggaacct ttatcatggg gatggccctt gtacaacagg agtacaaagg gcttacaag 180
tgagtagact ggctcaaact aacaatcacc tttgctttgt tttagcactt tgcttacaag 240
tgaatgggct tctagggcta agttattagt tttcaattcc ttgtaattg ataccaaaac 300
atatcaaaaa taataagcta aaacaatatt caaacccata ttttattggc tttattacac 360
acttcaatat ttacaaagtt aaagttaaata gaaaagtctc tattgtatta aaaaaataa 420

```

ctacagccca aattaaagt ccctggggca aatcatatca atcaactaag aatcagtgac 480  
 tggatcaagg acccaggcca gtctctgngg tacaacaaaa gccggtttat tttggganca 540  
 anggttggga ctctatacaa tccc 564

<210> 8604

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8604

gcaagataag gcacittgtt ttttaattcta tcagtctctt tagaatgaac aaaggtctgg 60  
 gtcctctgga aatctcaagt ggtgctgcct gcagctttaa aaggctgagc acaaaccat 120  
 cagagagcca cagtcctaag tagactcctc ggtgcgctct gccacactgt ccatgtgcat 180  
 tcagatttct cattaaattt tccacagcat gaccagtggg gatgacctgg gtggcctttg 240  
 tgtccatggc cacagcctag gtaccacact ggcatgggtc ctccacaggc gcagcgagcg 300  
 gttttctggc ccccgtgga gcagaagggt cagcagtgaac acacgcctga gtgtgggcgg 360  
 tgctttctcc tcaccgtcac agtgaatggc gagccctgca catgctgntc tttgatgcag 420  
 acccacacag tatagacgcc aggttccttg ggggtttag gaaatgtagt atgtccatcc 480  
 ttggtatcct ggaccattgg tctgactggg ctgctttctt aactttangg gcaacgggaa 540  
 ctttgaacgt tgtntcctcc t 561

<210> 8605

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8605

catgtgaaac ctgtaacatt ttatnngtta aaaatgaaca gcttcagaat agatctaaat 60  
 gtaacttttc caaaaaacac caaaaagtnc agggtaaagc acctcctcgt taaatncaaa 120



ctttcatnng gngatgcacg gcnccaatgt tttgcatatn ccttgatgca aagaaaagtt 180  
 taagttgcat cctgttttta aaaaaanccg aaacttaaga actgaacaag gattacaacc 240  
 acattccaat aaagaaaatt ttccttcaac aaagcatatt gttttgttta tatncaatat 300  
 gngaccacca agagttttaa tttagttgta ccaaaggcaa aacattntac ttaaaattaa 360  
 attncngatg cntgaagaat aaaggtttaa ngttcaaaga ataattgggt atttaatgcn 420  
 ctcaatgtca gtatitttggg gcaattttta aaggttttcc caaaaaatgg nctggatagg 480  
 ctttatccaa taatngggta agaacnggga aaatggaaac ncctttntnc catittttnc 540  
 caaacctttt ttaaagacgg 560

<210> 8606

<211> 447

<212> DNA

<213> Homo sapiens

<400> 8606

agtagagatg gggtttcacc gtgtagcca gggtagtctt gatctcctga cctcatgac 60  
 cgcccgcctc ggcctcccaa agtgctggga ttacaggcgt gagccaccgc gcccggccat 120  
 catttctatg ctaccatctc agcatctgtg gtgaggggag gggtagccact tcctctttgc 180  
 ccagcgagag ggcgtactct accccagaga gggaaacacc atgccacag tgcttggttt 240  
 tgcactcagg tgtgcgggca gcacagcagg cctcaccttg cagcactctg ggcacaatga 300  
 cactgtccac tggggagctg cagagcttaa cagctggctg ggtctgccct cgggggaagg 360  
 gaagagtttg cnaaaaaagg aggcctaag gtgagggaan tttggggccc accnnccagg 420  
 tttaaagagg aaacctttta ttnnan 447

<210> 8607

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8607

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attttttccc ttgacagtac tttattaatt ttcattcata tttacttga ctaaaaatac   60
aatgtatgaa aatttatctt taatagcatt ttccataagc tactataaca atttattgat  120
acatctggga ttcagccagg tcttatagta tttaaattta taaccctgc catgcttagc  180
attaagtaaa tcagtatgca agcagtattt aaggcaaagc tttagaata ctttaaattt  240
catttgtaaa tacatagatg caagactgtt tccataggaa gtcacaaatc ctcaaacaga  300
aatatgtgtg ttctcgatgt taccctgac agaaatcaaa cttggaagaa atatttttac  360
attagaaaaa ggactcagta taaggngaaa acaaaattnc cagtgggcta gacatgaaca  420
aaagtattca ttccccaaan gcacattctt tatacagggt tttcaaatta nctcctatta  480
atggaaggct tattcattaa atatgaaact atgcctacat taaaaccngg atttggtttn  540
aagggcttan                                     550

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<210> 8608

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8608

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atactgcaat gtacacattc ataagaaacg ttctaataac aattagcgca caaaactatt   60
ggtataaaca tttttccaaa aagagaaaac tattgcattt cgtagaaat cgcgtcctgg  120
gccgaggctc gtctttcttc tctgcagttg gtttggggac agaactccag cacgcagctg  180
tccaactgca gcggctacgt gtttccatgg agacaaactt ggtgtctcaa gttcagggtc  240
tcgaaagtcc cgaatatattg tttgtcccga gagaagagtt ttgactttga agaggtccag  300
gtgggactcg ctgggggttg ggtgctccgg gattagttca nagggaggtg tctggaagac  360
tccnggaacg ggacgcagca ctgntggttg gacncaccgg gatgctgntt tcttgaagtg  420
tgcttgtgac actgacctgt tgacaaactc ttcacagccg nggcttgatg tgacgggnac  480
ttggcagaag tcccacatcc ttctggtgtg gtaaacttct gggttngatt tttgaaa   537

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<210> 8609

<211> 426

<212> DNA

<213> Homo sapiens

<400> 8609

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aatagagaca agttctcgct gtgttgccca ggctgggtctc gaactcctag gttcaagtga    60
tcctcctgcc ttgtcctgcc gaagtgctgg gattacaggc atgagccgcc acgcccagct    120
gagattacat tactttgagt gttaattcc actatgacag gaagtagcct aatacatact    180
ttttgtgtt aattttctgg attcatcctg attttttagtc ttcctacctg agtacaacaa    240
taaaggaaat cacttcttag atacattaaa attacttcta aacttgcccc ccacacatga    300
actgttttca gtttgctatt tttaatggnc catgcttatt tatatagaca tagcataaca    360
ctgntnacac tttatnggcc actggcctct ttcttaanan tatantataa aaaaattttc    420
tatatt                                           426
    
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<210> 8610

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8610

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aaagtccata gattttaatg aaatttctat tcctgtctct gagcggctgc tgtgctttgt    60
ctgggtcccc caggggacaa gagtcaggct ggaatgagac ctctgtctgc caggcctttg    120
tggaggcctg ggaggagaaa ggccaaaggc tttgatgctt gggaccgatg cccggccact    180
cagctccaga caccagggat ctggcaaggg ggtggggcaa gggccagaca gaccaacagc    240
cttgggggtcc tggcgagagc tcgccaagac cagatctgaa gctggctggg ccaaagcagc    300
tgangcggca gcggcagaca ggtgccctgt gggcagaagc cagagcctac ttcggtganc    360
aagccnttaa gcttgggctt ggggtgcttg acttggacaa tgggtttgga actggccntt    420
ccttgggctt gactgnaact gccgtcccaa cggtgggtan ccactggnt caagtcaaag    480
taggcttcca naagaggtgc aagcagcanc actggaaaag gtgcaacccc caaagggaac    540
    
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550

<210> 8611

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8611

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ccaaagaagc cccatthttat tacagagaaa atacaaagcc gtttcctcac agggaaaagt 60
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tatcgaaact tcccatgtcg gttaaagtgt ttgtagagat agcggatgag tttattaagg 180
ttgtgcaggt catcagcgaa cattctactt ccaaccattt tcctctttcg gatacaacgt 240
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tcgttccaac gatcaaccac ttggtgggggc gggagagtga gccttatacc gatcaatcta 420
ggcacaccaa gagagaagct tctgcacgcc agangcacc agtnccaagg cgcctacctg 480
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aaccacagaa gatgccngga ccng 564

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<210> 8612

<211> 503

<212> DNA

<213> Homo sapiens

<400> 8612

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gacagagaca gacaaaccaa cagagatgga gagaaagacc aacggatgct acggagagag 180
ggaaggaaac cccagtgtcc accacctncc actcagatga gttcacagga taaagaattg 240

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cgtggaccgg tccacacgct ncaggaaaag agaggagtgt ccgccctatt cactctaagg 300  
 aaggtggcag gccacagcct aaaccagccc attccatgtg atgggggtgt ntgcacatag 360  
 atcaagtcca ttctactggg caaggggatt tcaggccagt ctattctant gtttgggggc 420  
 cggggaaaat cgtaggggc gatccattcc cantcgggga ggggggattn nanggcangg 480  
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<210> 8613

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8613

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 attccagcca tgatgagcat ctgtcttctc aggcaatcat gatgaagctc cagggacagt 180  
 ataaccctac tctcccactc atccctgagc cttggtcctg gactgaatgt ggtagaggt 240  
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 ctggctctct tttgcttagg tacaacagga gcaggaagga tcaacattct tgaaagcata 360  
 ccttctattc atttggtttt ttttgacttg gggcgccagt gtagagctga gcactccact 420  
 gccctttctc cactcacaaa tgtctgcata ggtcacgtcc ggcactttca agcctccttc 480  
 acgtcaactc ctggggcttt tcggnngcca tcagtaggnc atataagntg naccttgggt 540  
 ttactcctnt 550

<210> 8614

<211> 251

<212> DNA

<213> Homo sapiens

<400> 8614

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 gcaggaggaa gaggagagaa ctggcaagag aacaaaataa ggagacanaa caggnttacg 180  
 acaaaaacat ttngctacn atagacaatt tganaaaacg ctctaccaca tgtagtactg 240  
 tacacggntt t 251

<210> 8615

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8615

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 aacttggtca aaccttnggc tttatcctat ctaatttcaa acaaatgccc agccttaatt 120  
 tattacaatt atgattcgta gactttcact caattacata aattcactct cggttgagga 180  
 aaagagagag gtggcagagg attaatccaa aggatcctgg ngtcactac cttcaaagc 240  
 cagaccctgg tggggcaagt cctgccaaagt catcaggtgc tgattaaatg cagggcactg 300  
 ggtgggaagc aaattcctaa aatgtggttc ttccagaag catcttataa tctagctcag 360  
 gggcttgag gctccaactc actccggaat cacctgggga gcttctgaaa ccattctgat 420  
 cctgaactcc ccctaaataa atcaaactct ttgggccata aactgnaana aaaaagttaa 480  
 atcttcacag gacattctaa tggggcagcc cnagaggnga tcccctggtc tanggtttc 540  
 atnaaatacc ttanaaattg 560

<210> 8616

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8616

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 gcgcctaact gaaattatta gactaaattc ttagtaaaca atgttttctg aaccttggtc 180  
 agaaatataa tcaactgcaa ttattttcca agtggtgttc taaaaaaca tataactgga 240  
 cactagtaag aaagtaaggt aaattattaa tccactcgca ttcaattcta caaggaatga 300  
 aaccattttt aaaagtggct tagaacaac aatttactga gcacttacta tgcacccacc 360  
 aggtatattc cttttataat gtaatcttca aaatgagctg tcaaactatt ggcccatttt 420  
 gtgaatgagg aaaatgaaaa ttaagttata taatcatgag tggcagagct gggaaatgaa 480  
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<210> 8617

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8617

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 cccgtatttc cctctgcccg aatgaggagg ggaggggcgt cctgggtcct gcagctgtag 180  
 tcttgggggt cagatggaaa cttcatactc ccgcgtatcc ccagcttcat acagcgggtt 240  
 gctgaagtcc gactccacgg tgatggggct gtaggagtgg gagcccgaga agccgaaaag 300  
 ggactttccc tgaagcttgg tgtagtagat gtaaagcca ctgccgagga caatgaccaa 360  
 gcctagaggc agcaggatgg ccagggccag gttccccct tccagctgcc gtgatggatc 420  
 tgtggtctgg gtcacttcag ttttcgntg tccaggagct cctcatangc aactttgcag 480  
 antgggggct ggcttgncc actgggaagg gtggnccggc acacaggtga tggatgaactt 540  
 ncccataact naaagcccta tn 562

<210> 8618

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8618

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agggtaagtc agtttattga tgtgttgtga tccatcaccc agatatatta aacacaaagt   60
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atataaaacc tttgtacatt tttaggtatt tttcccttca atatttaa ataacatgatt  180
tcttctggca tgtattta at gttaagtga catgatttta attagtcttt ttttatcggt  240
atttcagcca ttataaaagc cataaatgtg tttccagaaa aagtgccttt gatattatta  300
cagtattctc tcataaaata ggaggtacgc ttgtgagttt agtactttag ttgtaggcac  360
agcttgaca tgtgtgtcgc tgatgtgaaa cactgccc tttgattcca tttcaaaatc  420
ttgtggaata tcaccgtgaa gaacangatt agagagatga ctatttgcgg gtcttgcctt  480
ggcataagca gtgtaatgcc ccgacctata gtccnctgng gtcaacaacc tccntttagg  540
gatnagtccc                                     550
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<210> 8619

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8619

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gctttaaaat aatctacact caaaaaaaga gagagaaaga gagagacctt tggaggaaat  180
atgcttattc aaaagcttct tggaaaagaa aatttacctg aatatcaagt catgactgat  240
ctcaagtgtg atgttttaaa gcttcacaga catgaatatt acaatcttca ggtctcagga  300
cttttaatct gagaaagttt agagtttggt ttgtttttta aattcacttt ctaacaaaaa  360
caaataatag aagtactcaa attttcacta ttacaactc tcagcctaca atctgaaatg  420
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acacaataca agttctctta aactgcagca ttaaagggtg ggcacaccat tcttctgctg 480  
ctcgattgnc atccactgga acncacnttg aaaatattta tggtagtaaa atgatcnctc 540  
ctgtnccttc aatngccaaa 560

<210> 8620

<211> 528

<212> DNA

<213> Homo sapiens

<400> 8620

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tccattagca tttctcaggt ttcattgatcc ttttcagata tgttggttga ttttatgtat 180  
atattgctta gaaacaaaaa tccacctgat attaaaacia accaaaaaaa atcataaaaag 240  
caagcaaatag aacaaaaaac cctagtTTTtg ttgtgctttt ctttcacatt tcctacaggg 300  
agatttgtat atctcagata ctttcaaaat ctaataggta agtaaaatta gtgccttaac 360  
caaacagtaa ggataccaaa gaatcctcca tcacaagtta ctgaatcaaa cttctcatga 420  
catttgcngn atattcagat ttgaagattt ttaaatttag aatttaaacc aacttttagac 480  
tgctgatttn catattcaag actggaagtt gntgcagcat ataaangg 528

<210> 8621

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8621

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tacatgatca tatctgtaaa atggaacaag ggatattaaa tcataaaata agactttcca 120  
acatttggtc tggatactga attagtatga cacataatat tctaaaactt tgctttctct 180

atgctggcctt ttctcaacta aatgaaagca agatatgatt tttggatgct taaatagtag 240  
 ctaggtattc tcttattcca gaacacagaa aaaaaagcc attaaatgtg ccaccataaa 300  
 taaaattttg ttactatttt aagtctaaaa ataacagtaa tataatcatg attcatttta 360  
 catgtttctg aatttatatt atcaaccag agaaagggtt atatcagaca ggtaggaaac 420  
 ctctgacaac gacagaagaa gtgaactgcc aaaaccatgc tgaagnggtc tttaccctcc 480  
 gcttggcact ggancangga ngtgccgcac acctggcttg gtcacctgnt tggt 534

<210> 8622

<211> 520

<212> DNA

<213> Homo sapiens

<400> 8622

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 aaaaaagaaa gaaagaaaga aagacncaa aatacaagcn caactcat tttcaaataa 120  
 aggaaactnt tgctaaataa gtagcaatta tgctgaanaa tttatatgct aaagcacgaa 180  
 tgaatntaaa aacaccagag cagtcaacca tagcttttagc actttgagta tgattaacag 240  
 aatgaacttc caaaggncaa ttaaatgtng acacacttta aagagatatt nttaagcctg 300  
 gtcaatgtat aacagcacct ntaattcag gggtatncgg ntaatttag gcataacatg 360  
 catgggataa atgtacatat atntncngaa ttaccacatg tcttcnacca gattactaca 420  
 gaaacttcat gtatcaccta cccctaagag gttttggcta tgtagtnttc caggttntga 480  
 aatggattaa aggaaacctt aatttttttn ctttgggnacn 520

<210> 8623

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8623

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 tgaaatcata atcatcagaa ttgtctgtaa actactatta gctaaattat aaccttgcac 180  
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 taaaacatgg gaaagctcct gtaaaaaata tttatcanaa tttttctac ataaggatat 420  
 tttngctttc attttttaga tcagcctnga ngagaaaaaa cattcctttt aaagtnaaaa 480  
 catatatttt tggtttgggt ttgcctatga aatatcttaa aaatgnnggn aatttttatt 540  
 t 541

<210> 8624

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8624

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 aactactata aaaacattcg ggggttgtca aagttagaaa acctaaagac cccaccccag 120  
 gatctggctg aagcagtcct cccccagctt cttcactatg acctttatac aactatgggg 180  
 gtgggggtggg atcacacagg cataaaaggg ctggaaattc cccacacagc ctccaagggt 240  
 aagaaatgag tagcttcaca tatcacaaa gtgggatttg gaagtttggg ggtggctagg 300  
 ccctgagttc agaggtgtgg ggaaaaacct gtgacctga atctcttggg ggggaatagc 360  
 tgccacctga ccccaaagcc ctttcccttc ctgatgaagc tggtagatgg gccctgtccc 420  
 caccctttag ccttaatcct naggccatt tcctggcctt cacccttgga acacttctgg 480  
 aaaaccagca gggaggacag aancctcagn ttttggangn ggaggg 526

<210> 8625

<211> 511

<212> DNA

<213> Homo sapiens

<400> 8625

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cagaatttcc caaagggtgt tctttagaac acaagttcct tgcagtgtta ctaggtgccca 180
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ttcactaact ttctaagatg gnatgtgttt tccaaactta tttcatccta gaatcctata 360
tttagaagag catctttgga acttngttc tttagaacac actttgggaa acactggatt 420
ctattatttc tacagctaac tagcccaaaa ggctagctat caatggctta atncagangg 480
catttaaccn ggcttngntc taccagcntn g 511

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<210> 8626

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8626

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aagtaactcg ttcatttagt caagcaacca ttttagctga tttagtcact gattcaacta 300
ataacattta ctcattgnct tagatttggg aggcatagct tgatagctgc aaggattatg 360
ttaaatgtca gtgaaataat ggaatgtgga ttggctcatt tcactttaa gatcctgctc 420
acagggcacc aaacattaaa ctaggtttta aaattaaaat ggtngacatt ttctngngcc 480
agaaacttng ggtcaatttg ggaangtttg gtggggnaat ccaaaacatg 530

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<210> 8627

<211> 515

<212> DNA

<213> Homo sapiens

<400> 8627

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gagagggagt ctcgctctgt cgccaggctg gagtgcagtg gcgtgatctc ggctcactgc   60
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acaggcatgc gccaccacgc ccagctaatt ttgtatttt taatagagac agggtttcac  180
catgttggcc aggatgggtc cgatctcttg acctgtgat ccaccgcct ccacctccca  240
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ttttaagttg agatgggggt tcacatgta gaccagggtg gttttgaact cctgacctca  360
aatgatctac ctgtctcagc ctncagant gctgggatta cacacatgag ccactgcgcc  420
ggcatatgta acattttaaa tacctgactt ncttaacata aagnagaca gcntaagggn  480
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<210> 8628

<211> 470

<212> DNA

<213> Homo sapiens

<400> 8628

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caactattta aaaacgtaaa aactattctt aggttgaaga ccaccagaa gcagggtggtg   60
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cctcaattgt ctaatatggt aaccactagc cacatgtggc tactgatcat ttgaaagggtg  180
gttacatgga ctgagaaact gttttttttt tttttttgag atggagtctc gctctgtcnc  240
cccagctgga gtgcagnggc nccatctcgg ctactgcaa gctccgcctc ccgggttcac  300
gccgttctcc tgcctcagcc tccaagtag ctgggactac aggcgcctgg ctaatttttt  360

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ctatTTTTtag tggagacggg gcctcaccgt attanccagg atggctngat ctccttgacc 420  
ttcngatct gccncttgg ccttccaaag ngctgggant cccggggnta 470

<210> 8629

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8629

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attcttaact gcaccaagta aacttagcca ttttaagtatt tttttaagtt attccctcca 120  
aaaaactgag ggagcttttc tttccacca ccacaccatg gtttcccaat agttctcttt 180  
ttggaggact tttcaattga tgagtaaact gctttagata ttcagaact tcattcccca 240  
aatgaaagct aatctggaca aactatatat tgcatagatt tctctacaga ttctttgctt 300  
taaaacctaa atgcaactaa catagtgtaa ttttaaccta ttgccccac agtaaaaact 360  
atctgtcctg aaaaatatga tggatatatc ctgngatttt ccagttaaca gaattgggtct 420  
acttcaaaga taattattat catatatcaa aataccagct taacatangg acattcttca 480  
gtcnttactg actcataggc atatgaacct tggngcccag ctttttaacc tnttccacaa 540  
tcttctcct cctc 554

<210> 8630

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8630

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cacacataca cgcacacata cacatataca tatacgatac acacaaacaa aatagagcag 120  
ttccatgaaa tcagacatat acgggaatgt cttgattacc caacaaatcc tctccccttc 180

cttccctcat caaattgcta tgattgaagg cccaggaagc taccaactac ttagggcttt 240  
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aaaaatggca atatccccag agacagcaaa gtatittgca tgtttatgtc tgtgagttaa 360  
ctgtcaccac atattgcctg ctgtcttcat caatgcagct catagtaccc aaaaatgtga 420  
aaaaatccta tccaaaacag atgnncttt ttacatacaa attgggtaga acgcanagcc 480  
tgatgatgaa agggtcattt tttactggna ggnntaaaaa atttaaattt tgaaaatcag 540  
gttnggn 547

<210> 8631

<211> 415

<212> DNA

<213> Homo sapiens

<400> 8631

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ttttccttat atgggtgtcag ctaataagta tttggggaat aaatgtgtag atagtggctc 180  
gtttaaaaga agttacatta tttggcattt attacatttt atttttctta attgattaat 240  
tgcagttaaa ttaccttagc atgcaagagc agattttaca gattttgacg tatgattaag 300  
cagcataaag cataactaat gnggttttag tggcatgcta tgtattaagg cntgaaattt 360  
aaatcccccc ttcatacaaga ttttttgcag ttccggggaa tttnnaangat cnnat 415

<210> 8632

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8632

ccagttctga caccttttta atagaaatca ctgttttttag gaaacaaata gcacttttgt 60

aatttttttt tacaatgttt cttaccttga tcttaattta agtaacncta ggaagacctc 120  
aatatctttt attttccttt ttaatttaaa aaaaagtttt ttttccccag atncaaagat 180  
ttttgccctt gcataaaaaa acagtgtccg aacgatgacn caaggactca caaagactca 240  
cgggacctca ctgacnctat gattcctact ctaccatgca aggtcttggc tacccttaat 300  
tggactgtca gcctgaaaaa cagcttttct attccttatt ttagtttttg ttaccaagaa 360  
agtaaaatga acagtaaaat aaaactttcc ttaaagaaaa aangaacaaa nccnaaaatt 420  
aangaaagag aaaagaaacg tctncattca attcacacac cctngggccc ggtgctgggt 480  
tactcaaaaa cttcccttct tataaattna gaaa 514

<210> 8633

<211> 527

<212> DNA

<213> Homo sapiens

<400> 8633

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tatgagaaat ctctgaagag caaattcagt ttcgaaaaac agctaataat atcgaagaaa 180  
agtaggcact ggtggatact ttctagaaga cagtattaat acagcaatac ttttaggaata 240  
atgatgaatc tgtttaaagg caaaacatca ctaacctaat cagatcactt agagaaataa 300  
gtgattttct ctgtcttata ctgagatcat atagccattt aacctatctt caaacagaca 360  
naaattttta aacactttct atcctttaag aaaatcttct ttgcttggct aaatgacaat 420  
gttcangaaa tgcctgccac agaagcntan aaaatccttg gcaaccattt cagaagaaan 480  
ttaccctgc ataaatgggt ttccagcaac cgcttcaata agctttt 527

<210> 8634

<211> 519

<212> DNA

<213> Homo sapiens



<400> 8634

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atcaaacaca aatttatatc aagattaact ttttcaacca gcttacaagc agacttttcc 60
ctttctttgt taaaaaatga atggtatgaa actatatgtt aaagatgttt ctataatacc 120
ttacatttac atagcgcttt acaattttca aagtgccttc acatgccatc tcattttaac 180
ctcacaacag ccctgtgagg taggtacagc aggtattatt atcctcattt caagatgagg 240
aaattgaggc aaagagaggt taagtgactt gcccaagatc acacagctgt aagtgc taga 300
gctaggacct gaaatcaagt ttttgactc ctgtgccagt actcattcca ctgtaattac 360
tgcctcaagt tatgaataat gaactgtgta tcaaaattga aagcttactg aagttcattt 420
cagtgatgtc ttaacagtaa agttaaatga gaaatncaga acagtaggct gatggtttac 480
ttgacataaa atggtgcaaa ncactttggc taatacttg 519
```

<210> 8635

<211> 510

<212> DNA

<213> Homo sapiens

<400> 8635

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gaaaccaatg cattctttat tgcagactga agcttagggg ctcacccact gtgagctctg 60
atttgggggc atctgtggct gccacactt tccaagacag acaagggcaa actctccaag 120
cagaggagaa aacaacttcc agaagctgcc cttcaaagg cctgaggtga ggacctgggg 180
cagcaggcag cttggcatgc aggggttaac cagaaaggcc gggctctggag ggctgggcac 240
acctaaccct catctcctgg tgactgcagg tccactccc ttcttcagga gtgccatgca 300
gactctggaa caatctaaca ggccaagtgt ctcccagggt gggtaggga ggaggctnaa 360
cacaggctca gatccctgga agtggcaggg agagaactga gagaaacttc accctctgct 420
cggaggacat tccaagcct aggtccttgc ttcttaaact ctaaagtgt tataggaatc 480
aacttggggg tctttgctaa aatgcagggt 510
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<210> 8636

<211> 424

<212> DNA

<213> Homo sapiens

<400> 8636

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gaagttagag atgacaattt tgagatttat tctttatcag gagatgcaaa ctcaaatacc 60
tccagaatga aggcaggtaa tgcaaatgag gattaagtat aattaaaaaa aacagcattc 120
atccttaata aatggcatgt accactttgt ctcagcaggg atgcagtagg taaaggtgga 180
gactgtggtg agctagagga cgtaccccct gtcttagggg ccagtcattg ccaaatagaa 240
gtgtgggatc agtgtaaca gatcttctgg ttttagaga gaaactatag atattttcat 300
tttgacactt tctaattatt aaatgttcac aatgaatttt ttaagtgctt aaacactata 360
cagacaaaac catttgnatc tatggncaac ttngccttgg gggnttctaa ttngngactt 420
ntaa 424

```

<210> 8637

<211> 518

<212> DNA

<213> Homo sapiens

<400> 8637

```

ccaaatgggc atttattatt tgcacagatn cataaaaatg attcccattt taaaaacat 60
aataaaaata tacattaacc acagaagtac ttactctaac tggaaagaaa atgaacatgg 120
ctattttcaa aacagtaata aacacaaaag gtcaacatac ataatcatg acaagtgtac 180
atctcatttt tgacaaaaat aagttccatt ttacattaa tgcttcatca tcaggctcca 240
tattacatcc tctgacctta ttacattta ctatcaaatt tctattagca tgtgtcactc 300
aaaggcactc aattcagagg gtaaaaagtc ctgagcttaa gtaggaaaca aagttcccaa 360
ctaaaatttg aacataaata attctaaaga tcagagaata ttaaatggtt taaaactata 420
atatctggtc cataaataat tcaaaaccta ataataaagg tgtcangact ggtcaaagaa 480
aagancctgt taggcagaaa aattcctngg aatnaacc 518

```

<210> 8638

<211> 524

<212> DNA

<213> Homo sapiens

<400> 8638

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aataggaag attttaataa cagtcagtcc ctatagtcct cttgtctaga acaattaaat   60
tattatccct cagacagtac aagacttgct agtagactgt ggggaagttg atgagttgac  120
accagggcta gtggcatttg ttttggggaa gacagtgggc ttgggccgtg tggctggtgg  180
tttgaccggg gcagccatct tgacagactt gacaggccgg aaggcgcagg cgatgtcccc  240
agcagtactg gcgctgcgct ggaaggcggg ctcggggtcc ttgaggagct ggggtgtgcag  300
agggctggag ggctctgacg tggggggccac cactggggag gttttgaggg gctccaaggt  360
gtccagaacc acgtcagggg tgtgtttgac actgctctgc cgttctaagt tcccgtagct  420
cattcanggc cgagttcatt gntgcctcaa taccctgagc aatgacctca nggtccatgg  480
gnccatgggt antggaactt ttgacctn ccgttgggga anct                        524

```

<210> 8639

<211> 524

<212> DNA

<213> Homo sapiens

<400> 8639

```

acagatcaca ggaattttta attgcagatc agtcatgcta cttgggggtga tcagaaagac   60
ttgaacactt accaagtga taattttatt aaggtcctga aggtgagtgt ccggaggtgc  120
tgggtaaaac acatcacagg taagaaatgg gaaacctacc tcagcatttc tgaaaggcac  180
aatctatgga agggaaacct agcgtataaa aacctcact ggatgtacat ggaaaggagt  240
atggtgagct atttcctttt taaaggatga gaccttcata aattggcccc tcggattctg  300
gtgattcccg ccgcaagcgc aaatgctcca gtgtgttatg aaaatggttt ggtaatctgc  360

```

tctggttctt cactgggatt caaagattcn ggaggtcttc tcgaatcttt tggataagct 420  
 ggtttaaaaa cctgaattgg tacccgcac c attttccttt cataaaaaata gatatatctg 480  
 gtcagaattt ctataaaaag ctgcacttgt agaaganggg gtcc 524

<210> 8640

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8640

aacgttttca aataatttat taggaattta aaactgaaaa taaaacctgg aaaaagaagt 60  
 tacagatgtg gagagaagag acaccggagg atggtaactt gctggcttcg aaacaccatg 120  
 taacatctta aaaaaaaaaa aaatcccaaa gcaaatcaga aaacggaatt ccagggtcct 180  
 gagcccatgg ttgggcccag tggggtggaa ggggtccgggt ntgagggaga gggaagctaa 240  
 gtgtctcagg actcagctca aacgtgtaga aaattaaaaa tnaaaaccaa taaaatgcag 300  
 cttctctttt attaggaaac atttaaaaaa aaaaaaccca aaacacgaac agccgngcat 360  
 ntcagtaacc aagattattg cttttgggtt ctcanggctg atagggtaaa caccttacac 420  
 aggccattna ctnttcaagg gtggggtttt ccggtngggg ccatgcttgg gnaaaaagct 480  
 caggcctggg ncctaaaact gggggaaagg gcccccnaa ggggg 525

<210> 8641

<211> 524

<212> DNA

<213> Homo sapiens

<400> 8641

ggttttgaaa acacacacct tagtgtactg aaagaaaaac aatttctttt aatttggttt 60  
 gttgggtcca caccatct atcaatgtat gtgctattta caaataagtt ctatacagta 120  
 tttttgcagt accttgata attcctagac ctctattttc attctgtgta ttaatgtgaa 180

taacagatgg atattttaat atttaggcag atggtaaact ttcctatagg tcttgtagaga 240  
 cttcgtctta taggctgaac accattcaca aaatgtaata atgcttcatt ccttcaggtt 300  
 gaggtaaaga acttgagcaa ctggattagc aaagctgcaa agaataaat gtggcctaag 360  
 atgtaattat gttctctgcc cttcctttgg gccagggtag ttttgactt gacacaatgg 420  
 aaaataggcc attaagcctg gaaattaaat ggtcttaacc ccaatcttac aggacnttaa 480  
 taggctttca cttggcntnt ttaagggnnt tcaacaaaac ctaa 524

<210> 8642

<211> 478

<212> DNA

<213> Homo sapiens

<400> 8642

ggaaacatcc tagtaaaaat ttattcagac aagaatcgtc aaaggatgct aaacctagga 60  
 ggggtagatt tgatgaggaa cagaattgtc aacaaggctc caaagtttct cctcacaaat 120  
 taccactaa ttgcaaaagg aaaaacaata acgatacact ggagaaactg gacatcttac 180  
 ccaagtgatc aaaattagca tcaccaataa gggacaaatg gacattctgt gcatctggat 240  
 gtatacctgc aatacatatc acttacagca tttcaaccct cactgcacta ccccaatcta 300  
 accatgagga aacatcagaa aaacccaaat agaaggatac tctatccttt agctgncctg 360  
 natttttcaa atatattact attataaaaa acnaagaaaa gctgaggaac tgnttcagaa 420  
 tanaagggtta ttgncattcc acntttggac cctagnnttg accgnggact tgaaaaaa 478

<210> 8643

<211> 459

<212> DNA

<213> Homo sapiens

<400> 8643

ccccgntttt catctgcaaa atgaggaact aaaatctggg aaaactacag agtcgcttgg 60

agggtaagcc anagggtcct tgcccttggt acaccccctg aaaacaaaac ctgacaaaac 120  
 tcaatngnga ttaattagng canaaacaaa gacagattca gcaagngcaa agngactac 180  
 aattttccct tgccttggg aagccagctc cctggtcgcc agtggcaggg tggcagggc 240  
 tgcttgccctg acctgccagn ttggggcgcc acaggccact gggcaaggcc agntcctnta 300  
 gctggaatct cggttcttct ggttccgcat cagggggctg tggcggcgca ggccctccat 360  
 gctgtgccgc cagtgccagc agcttcggca aaaagtnttt gaaagcaaac ctgatctnga 420  
 cagaanaaag gccnggcttg anaactggnn atttgaccc 459

<210> 8644

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8644

gtcatttagt tattctttta tcattattac tttaaaatac actaatacat tcttatctac 60  
 ttccctccac cgacaaatat ttgctaaat taaaaggatc actggaagta ttatgacccc 120  
 cctcgtcaca ggtggctcaga accaccacag ttttgtgaat gaatcagaga aggcaacatt 180  
 tcatcaacga aaactcattt aggtttcaaa aggccagatg tagtacagaa tgcattattc 240  
 tgactgtctt ctggaataga aaaattggaa aggatgaaag aaggaagtta gctccagctc 300  
 cactgttacc ttggcaaccg tggccaatc acaggggcag aaattaattt tgtgcccgtg 360  
 acataacgtg gcagaggagt ggggagccgt ggagtgggga gagaatgacg gctgggttta 420  
 aatgctcaga angctagtgg ggaagggtcc aggtcaaccc gctgggtggt naatctaccg 480  
 tnccaattan cactggggcc tttttcactg gaaggttnnga ttatggagag acnn 534

<210> 8645

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8645

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aaatacattc aagtcagtgt taatTTtatt actgaaaact gagtaaatta taaagtgcct 60
tttctcaaga aaactacaaa cagttttaga aatatatata ggatatttca gggttagaag 120
tcaaatttgt gtgttagggg acaagcttaa gaactctgga tgttgctgct ctaacaatgc 180
atttgatgat gtgccatgtg atactaagaa gtcagtagaa tcccaccagt cctactgcct 240
cagatgagtc ttgtttcagt catgggttta caaagtcatt gaggcttga ggacttggtt 300
tcctggaagt gattccctac ttgggtatgg caagaacaca tcagtagtgt aaaactgtca 360
tctgtagtag cactccatga tcatttcctg gatgaccact ttaaattata actcacagat 420
atgtggggat tctaagaatg gtatatgtgg ngaatagaac ctggatccaa acataccagt 480
tctgactcaa cacaatctct agttctccat tttanggatt aatcatatct a 531

```

<210> 8646

<211> 524

<212> DNA

<213> Homo sapiens

<400> 8646

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attgctcttg atgctctact caatgtactg tccatatctt ttgtatttac ttcaaaggat 60
tctggatcag cagtataaat aagattctca gcatctgctt tacaatggg gttagctaca 120
tgtcgacaca gcatcttttag ccagttttct tttggaagtt catctgatgt catctggaaa 180
ctgagtagca catttgccctg ctctgttggt ggcctcaca gcaaggcaaa agcattatgg 240
caatcttctg tctctcttat gtccaatacc ttcttaatct gagaaagagg cattaggtga 300
atatgcttaa gagaagctgg gggtcgggtt tggccatgag gactcctaaa agtgccaata 360
acctgtgcc gntttcttgc tatctctagg caatcattga agaggaagag aggtacttgg 420
tctcctctgn cacaaggggtg ctcacctaga gnaaatgggt caaccntgg cttacttgcg 480
ggagnaaatt aaagaattac ttgggcttcc nttaacttaa taan 524

```

<210> 8647

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8647

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gccaatataa gaatcttatt tactgcttta gtcaagaagg agatgttatt tcacttgtga   60
cttcctccca agtgaatgag tatacaattt aacaaactaa cacagttcag tttattaagt  120
tacaatctgt aaccacctaa tgtagctcag tgtatggtgg atactagata taaacaagag  180
tagggaagtc tttaggcacct gcatgatgcg tgccggcttt taaattcaga aagatgagaa  240
gctacaatgc aacttttttt ttaatctaca gataccgcca aaagaagaaa tgtttatcag  300
atittgaatg catactggaa agttggccgg tggcagcttt tcacattaaa tttcatcaca  360
agtgaactt gattacagcc caaactagac aaggcaattc aagtgccng accctgaagt  420
ncacgtgaga ctacaggaga acctgcatta tgggtgcttg ccagccagtc tctttgaggn  480
actgcctgta acagtcaccg gttgtngggg agaaacaact tccntttttt tn          532

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<210> 8648

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8648

```

gataaaggcg gcacttggca tctagtactc aaacaacttt atttactag ccatgagcaa   60
aaagttgacc ggctccaggg gattttccat cctgccctct ccctgctggt ggctcccatg  120
atitggaaat aacctcatgt tccacttggc agtgccctggc tttgtgcacc cacatggttt  180
tggcctgggt cccagtgaat atggtcctca cctggctggg gaacatggtt ctgagaggcc  240
ccttgatctg ccctggggac atgtgtggcc atgctaaggg ccctgcccac cttcacgtga  300
ctggccacct ctgccagggt gcaggcagct cctagcatgg agacatcctt catggaagtg  360
agctttccca cccacctnca taccacatt tctcagaaac agagttaaca gggaaccaag  420
agtcaagaag ccacagggtt ggtaacgtgc ctacaggcca aantgngacc cttacctgaa  480
nagccnggcc accaaaggta tcaggaangg aaaaaatttg gcctggaatg agataggaca  540

```



agaaaaa

547

<210> 8649

<211> 520

<212> DNA

<213> Homo sapiens

<400> 8649

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anaaagtagg tgccccaagc ttataggtgg ctgttaacat tgnnttattt cctttataca 60
aaaagtagaa atgacagaaa aaacactntt gacagaaaca ataccactga cctgatctca 120
tgaaggagct gagccaaatc tgcccacatt atggggaaag ggaggttcaa tcaacattag 180
caaatactca tgcaattgat gaaatataaa atggtatcag tggcttgggt aatgtcctgt 240
gggtaggggtg aatcaatcta ctcttaaaaa acatacat tccaatcat gcttttaaac 300
ggcatntttt aaaaaaaciaa gttatatata cagatatcac cccaaaatga atcttttaca 360
gtctactact ataaatttaa ggcacacctga tattctgntc ttctgctggg gaggcattgg 420
tttcatgggt ctcttttcca aaaggattgc cnaaaanttc cataattttc caanggcttc 480
nngggaagaa aatttataaan gggncctcca agaaaaagtt 520

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<210> 8650

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8650

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caacttaaaa agttatttat taaacaagtt aaacacanct aaaagtatat ttagaggtcc 60
aagattcaag tatttttgtc aaactttcta atggtaaggg gaatgataaa aattgaacag 120
atataaaaaa tattctttaa caaatattaa agcacatgga aaattcagaa ataaaaacac 180
accaccatat aaagaaatca aaatatttca tatgttttta aatgcttatg gtatgagagc 240
caaattgtct atttccaggt taataaacia tatataagct caccttttta aaggtatcat 300

```

actttgtgtc atatagaaat aattttggaa acagtatgtg ttgggtgtgt aaattgtcca 360  
 cattaagcaa aacatatattt acatatgaat attttcattt atacttactg gaaaacaaaa 420  
 cagaaaaact tataatttaa acatcttgat ttgaaaatat tttggatttg ataagtctgg 480  
 ttaatttcca caatgnancn gccaaagggg tnttcaaaga atggttattc aaaatttttt 540  
 aaaaana 547

<210> 8651

<211> 492

<212> DNA

<213> Homo sapiens

<400> 8651

gttatggcaa agtaagcttt atttaattgg tagcaggaga gtcacaactt caaactccag 60  
 aaaagatgaa gtaaatttgc aatgatttca tacaccaaga ttcttcctac ccaaagctga 120  
 agatatattt tcaaggaaag gtgatggaaa gaaaaatggg gctcgcccaa gagattcttc 180  
 catccagcag gcatatactt tgtctatcat gagtcaagcc ctgatccaaa ggcttggttaa 240  
 ctcataatta cactaagcat ctctcctatg ccaagtaatg tggcaagtat tgtgagggaa 300  
 atacaaatgc cctaattgtaa aaagttcatt ccagtgtagg ctgaccttct caaaatgggg 360  
 tctggtcaga ttctccatgc taggctacag gaaagaaggc tgaagaagca aatttacaaa 420  
 tcagtttgcc taccattgng aattngagcc aatgacttgg cattnccga agtccttana 480  
 ccntntnaat cg 492

<210> 8652

<211> 533

<212> DNA

<213> Homo sapiens

<400> 8652

ccaatgtact ataaataaac ctttacttaa gatcttgaaa tcaaaattag tttgtatagt 60

attcagaatc aaacctaattg acaaagcaag atgaaataac caacagcatc atcattatca 120  
 gaatagtaac taacattttat ataaaagatt actatgtgtc agaaactaag ggcttttcatt 180  
 tcattcaatt ctcataacaa cctataaagt aggtactatc attatatcca ttttacagat 240  
 gagtgaatga aggctagaat ttgggtcacc ggcccaacat gacccaacta ttagtagtag 300  
 gtagagaagc ggggtctccga acctaggtaa tctggctttg gaatctgngc tcataaccac 360  
 tgnngctataa tgtctctgat agcagctact aattaaaaaa taaaaaatgn atgnnttcct 420  
 aactttaatc ccncngata gggatattct tgggtcattt atggctnaaa ttttnaaaaa 480  
 ccttttcctt ttaaccttta cctatccnca atttgggtca ctggttttat ggg 533

<210> 8653

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8653

gacatctgta actttaattt aatacaaatt gatcataact cataaaatgg gcaacatttt 60  
 aaataaaaaat actgctgggg tggcccagat tctggtagtt gaagggttgg ggtagggctg 120  
 acaattcctt ttgccaagg gagggccggg tggcgggggc agccatttta agaacccccct 180  
 gtgttttagct cttccggcta ctttgggatg gtgtgtttgt tcagagaccc caagtcaga 240  
 atctaggccc caggactaga aagaaaagtc aaggccgggg agacatttag gctcagtctt 300  
 gcagcccact cctccagttc ccacctctgg gcagggatag agccaagggg caggacaacc 360  
 ctagatgtgg actccaccct ctcccagatt cttcacgatt ggatgctgtg gcagaaaaac 420  
 gcangtgggg cttgnttcac ccaccctaac ttccttctan ggagatgaca ttttccaaac 480  
 ttccttgcan ccaaggttct ggaactgact taagtcccc caaccgaatc tnttggaaaa 540  
 attanaattn gggaccg 557

<210> 8654

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8654

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cattctgatg gctcaatgtt tctgggatat aaactcatca ggcatgggaa ggatttccaa 60
at tt tggcaa tacactcaag ttatggtata aaaataacat ttgttttct ctcttttttc 120
tcattttaga cctaagagtt ttttgttata agacacccca gttaagaaat attgaaacat 180
aagagacttg accatcaagg gagaaaagaa gccaaagagtg aaaaatgcta tgaaagtaac 240
tccagacctg ggcggggcgg gaggtaggag gaataaggag aaaaggaggc ataagtggaa 300
aggccagggg cctgtcatct cagcagctcc gagacttgct atgtttgaaa gtgcaaattgt 360
caatggattt taaccatctt gaggttgtga tcttttaaaa agctcaatga atgaggaagt 420
caattccttc aaatgcaaaa tagctggctt tctggctgga nggttgn tgg gtctggggna 480
tttctttccc atctaccttc tttccaccc caaccattt cccaagaaa ggtccaaang 540
gtgccanttt tgnncatt 558
```

<210> 8655

<211> 289

<212> DNA

<213> Homo sapiens

<400> 8655

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atttattatc ttctttatta atactcacat gtaacctttg ctttttacac anaagtctgc 60
tttagaagaa tgcctcctcg gcttatcatg cccaatgggg ctttttgttt ctggaccact 120
tcccccttct ccacccccac ccccatctcc aaattactct taacatgttc acagatacca 180
cgaatatttt gtaaacanga tttgggttac tggaacttga tttcattaac atcccacttc 240
aaaatggaag gcaggnggng gacagggtna gaaatacnan anagaggac 289
```

<210> 8656

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8656

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cgatagtga aatatacttt attttttaat acaatagctg ccagcaatat actggtgctg 60
atgttccaaa gataaaagaa aatacatgca ttctataata agctttcatt tgcctgttca 120
agaaattata aagaaaatac taagctaatt aatgataggc tcaaaaaatg cagtatactt 180
ataaaaagcc gctttcataa agccagtgtt tactaaatgt tagcatatca aagtgggaga 240
aacactgcca ttttaaagca ataaacttaa aatttcaaga aacagcctat gagaaatagc 300
acttcctata caaattaggt ataaaaaaat taccaaaaat gtattatagt cacaatcaca 360
gtctttggag tagtacgtag aaagtctggt ttgcttttg tcttttaaaa aagagtaaata 420
acatagcaaa gttttatitt cagcaagttc atcctcctgt tagaacacaa ataattcctg 480
gtttagggtc tcaattaaaa aaaaccccgaa aaaacaaacn aaaacctgca nagtgctatt 540
cctcaacatg gctggtggga a 561
```

<210> 8657

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8657

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aactatttaa ttcactcctt tattctggga tgtntattac agataacaca actcacaat 60
ataccatcag acattgaaaa ctaaggccat tctgngagtt atttttaaaa cttgngttt 120
tgcncataat gatcttaaaa aaaaatgaat taccaaaacc aagattntnt tntaaaatga 180
aaatttaatg caggtacagg ataactttag ggctatatct aatctgaagc ttatcaggta 240
gcaaaacat tttcgttttc tacagcataa ataacagctn taaggcaacc actacctnag 300
catgaagctc atttctccac gttagagtag tgnttacctg ctacagtac cagngtttan 360
agaccatttc cttttcagta gcaaaagaga ctttacctaa gaaacacact acatactaca 420
gaatccttgg aacaagaaac agaaaggag ctgnaactaa ggccctgaaa gccattattt 480
gnataaagaa atgtaacnat ttnacaccaa caggttcctc cggnggagnt ttnt 534
```

<210> 8658

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8658

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gtagtagct tttacttatt atttatgtac ttatTTTTtg agacagtctc actctgtcac   60
ccaggctgga gtgcagtggg gcaaccttga ctactacaa cctcctcctc ctgggttcaa  120
gtgattctcc tgcctcagcc tcatgagtag ctgggattac aggcgtgcac cacctcgctc  180
ggctaattgt ttttgttctt ttttgagatg gagtctcggt ctatctccca ggctggagtg  240
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aggtgttctg cccaccttgg cctnccaaag tggtggggaa ttacaggggt gaaccaccgt  480
gcccgggctt tttggaattt ttagtanaaa anggggttna ccatgttggc caagctgggc  540
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<210> 8659

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8659

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agaaacatca aaggactcta accacgagtg acacactgtc ttaagtggct gtcgtgtgtc  180
atgtgctgtt tggcttgggg ataaagcaaa tccatacaa accaaacaac tccagaaaac  240
cccaacaatt tcatgttTgc aggaagctta ctttaaaaga ataagcttaa caaacactga  300
    
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taaggctgac actctagatg catcttcaag gaaggcctct acggaaggca caagggagct 360  
 ggggctggac tggctccctc tgggctttga ggccaagtgt cctgcacaga aggccctgca 420  
 aaagcaaaga ccaggtggca gcagcaccct tgggctttca aaagtgcaag ggacaacgca 480  
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 aaactcn 547

<210> 8660

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8660

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 tctggtcatg tccactccaa gagcagtagc accatgtaga aggctgtgag cagggtcccc 180  
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 gcatcttcac caggtcatct gcctgcacc tgtcccgctc gctgtgtcga ggggtccagg 480  
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<210> 8661

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8661

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 agacaccaag tcatcccaac caatatttat ccatatgaac agataaactg aacaaaaaca 180  
 tagttctgat aaaacctgca ttcacaacct aatgtagttt aaagtaaatt ttttcacaat 240  
 tgagggtgc tatttaggac tgttttgtta ataataaaaa caggaattat atagaagata 300  
 aaacaccatt ttttactgct atataatgtc ttgctatata aaacataccc tcaacaagtc 360  
 aaaatattta aaaccagtgt ttcaaatacc aaaaatcaca gctatgttac tgttcagtaa 420  
 ctccactcaa ataaatgtta gtactgcatt cttgaaggaa aaaaactgca gccaaaggcaa 480  
 gaactctgaa gttttgcact cagagtttaa aagacagacc ctactntgca actgaanact 540  
 gcccttttgt ttna 554

<210> 8662

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8662

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 ttttaaagta tcatatttca attgactaaa aatatagcca aatctgtcac aacacaacat 180  
 aaagtaatgg acaattatag aatattttta attaacagta acaagccatc tacatcaaac 240  
 cttatttcca actaaaacca aacaaaagca caacaatccc gtagtgtacc aagtgtgtat 300  
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 tgatttaagt agtaaaagaa aattcagctt caagagagta agttcatatc ttgaggaaaa 420  
 gtaaaagtac attaagaatg taaagccaag tccagtttct atgcaataag tgaactgtag 480  
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<210> 8663



<211> 537

<212> DNA

<213> Homo sapiens

<400> 8663

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aaataagttc ttttttttgn ttattttaca atatacttaa tattctcttc ttctttacct 120
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gcggcggatc acctctcgga ctacttgtcc caggcacgga ttctcttgnt ggcagtgtc 480
gcccgttaaa ccggctggca caaggcagta agggctcccc tgggctgana ngnggc 537
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<210> 8664

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8664

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acatagaatt gatcaaaatc taaggacaat attatgtaag gacaatatta aaaatggata 180
gaaaaagctt catttggtga ggttaatcta aaggatgcat aacctgtca cggtggacgg 240
ataaaaaagg tgataacctt gtgcttttat tcaactaagg tacttactaa aaccttaggt 300
tttatacagg tgtaagctc ccacctggaa agggacagtt ttctatatta cacctaaatt 360
tactttaaat aactgaagcc caaggaaaca gttgttttaa agaacttaac agtcagatag 420
ctacataatt tagtaaatta aaatcaacta agacaggtga taattggaat gtctcaaac 480
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tatnccactg ggggaaaata cccctgtccc caatttggag gtggtnaagc cgaccctcag 540  
gaggttgaac aatg 554

<210> 8665

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8665

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ggaaaggcca tcaccctccg tggacggggt ctggccacc acatccacct ictgaagggtg 180  
gccagacac ctccacgctg ctgactgcac ttcccatcaa aagggactcc ctggggcana 240  
gtgggccgtc cccctacccc cgaggaaggc accctcctgg gcggggacag accttggctc 300  
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tgtccaagggt ggagtccacc cctcctcgga gcactcagcc caccagggtc caagcagccc 420  
tcgggagata ccacgcggcc gnccacgtnt caacttggaa aaaagacact tcaaagaccc 480  
caagcttaag ttntcggggg ctggctttct tgggnccttt gggttggtg gttttcccgg 540  
gggtttttaa aaacctn 557

<210> 8666

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8666

agcattatga atgaaattct ttggtttta tttcacacag tttaaatac aatatgaaat 60  
caggctacag tatataaaaa actctccagc aaaatgatgt gccagcatca gctactaaaa 120  
taaacaacaa aaaaactccg ccataagaat ttttttgcac ttttttttaa aaaaacatcg 180

acattacat cgctacatct ctaagctacc tcagttctga tttttaaaaa gcacctgctt 240  
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 atacaagttg gaaaatagtc aaacacaata taacatcttt ttcaccccta tacttctcag 360  
 cttaaaaaaa aagtattctt aaaaaaaaaa gttcaataac tgaggcagta ttcctgataa 420  
 ttttatttta atatatatat tttatatatg tatatgtatc atatatttat ggttccttgg 480  
 aaacttcttt ggatgtaggt aagagttcaa caaatttatt tggaccccaa caggagtaag 540  
 ccgatggcc caagat 556

<210> 8667

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8667

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 gttaggcgtc aaattagtag tgacaatctt ttttttaatc ttgaaagtcc ctagttttta 180  
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 caggccaaaa agactctgaa gggaaccagg agggtttggc ccttgctgtg gaaagatgct 300  
 actgaaagta taagagaaca ccctaattgca cgcgtcaggc acgaaaccgt accatgcccc 360  
 gctaagacat gggaccagag aacacgtcaa cgtcaggccg ctccaggaaa accatccaca 420  
 aagacaacag aagctaacct gaggtcgaca ctgccatgaa nagtgttggc tgaaacccgc 480  
 agttaccagt gctttactgg acgcgaacat ncctaaggac ccgntgtgc tggttctaag 540  
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<210> 8668

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8668

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tgcgctagaa gcagggactg tcaaaggaga cactgaacag tgcagggagg attcatttcc 180
ccaccatata tctgggcaag caagtgtgga ggcagaagac atacagtaat gcaaaaaggca 240
tcattatcac agaattttct catgtgtgaa tgagaaagtc tttccatgga tataagtata 300
caataaatca cagtaatcta ataagcaaaa ctgctaagaa aaaggcaaat ttaaaaagaa 360
ataaaagttc aaaaaatttt taaagcttaa atatgtatgt aatgaatttt taaaaaattt 420
attgngcttc tctgnttat aaaaagtttg gttcttggaa aggaaacaaa ttggaattgt 480
acaggacttt atcttgnaaa tttaccatta aaggctttat cctaaggcan ttccttcaaa 540
aggtntctaa taaaggactt gaaant 566

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<210> 8669

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8669

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agaattccac tcaatcttta atcaagtagg gagaagtccc cacttaaaaa aaaaaaatat 60
ctgcagtttg aaggggcaaag ggaacagtta aaaaaagagg aaaactttat actcgccctt 120
ccccacaga ggttttccaa acctgttgta gcttgactaa aatgttcaga atgtatgatt 180
ttaaaggcag gtctctttat acaaagaaac tgctggcatt cttgactagt gaagaattat 240
ggcagaaagg ccattcttc tgagtctcaa acatgggtcca agaaagcata ttctgattgt 300
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tttccatttc ctccctgag aaaagggcaa tgtgtgtgcc aagctggaga gctcaaaggc 420
ttaagtcttt ccctaaata tatgatatcc cctcctcctg ctccattgaa ttggcacttg 480
atgagcagaa gtcaagtgtg agaaggctga tctnggcag tcattcncaa gaganccctg 540
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<210> 8670

<211> 527

<212> DNA

<213> Homo sapiens

<400> 8670

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agaaaatata caggacaggg tggagatgag ctcttgaatt tagtaggggtg aaagagttaa 180
ctgccaaacc ggcactatca ttgtacttgt ttggagaaaa tctgttttgt tctggtgatg 240
atggttttat cttccctttt agttgggtgg gaagtaacag aaaatttgtt tccccaaaag 300
tttgacattt tcttgttaat acacgtttca tttcagtagc atgccaactg ttaagcctgc 360
aggaatcctc ctgggtatct ctgaattgtg ctgtgtgcat gtgtgtttga aagctcaaac 420
agcttgtctt cttacagcat cgagttgttt gctttattgt tagacacaat attagcagng 480
natcctttcc gnattcccta ccatngaacc cnttnaganc taaaatc 527
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<210> 8671

<211> 504

<212> DNA

<213> Homo sapiens

<400> 8671

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caatattcaa ttattaactt taatgtgcaa ataaatagaa aaggaaaact acattcaaaa 60
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tccctagaag catgcgggga tgggagtact gggaggaggg gctcggcggg gtctccggct 180
gcacccgggg cccaggtggc tctgcccag acggccgtgg gcctgttaca ggaatcttga 240
tggcaagttc ctttcttaga aaaccaggat gtgtacaaag tgcctgtgtg acacttgggg 300
agcgggggtg gggagcccag gaggacgggt cagcatcgga atcgcccagc ctggagtcaa 360
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aggcatcagg agcctccagg ttccacagga aacttctaga aacacatctc actttctgga 420  
 aactttgagt ccnactgttg cangatggca aggggtggcgg gtattttngg cctactggnn 480  
 tcaaggggccc nggncaaggg cttt 504

<210> 8672

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8672

cattcaatgc attgtttatt gagtactaac tagctttggg cccaggctct gggttagcag 60  
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 cagggaaga ctgtagacac agaaataaat atccgattat aagctgtgat tagaggcatg 180  
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 cagtgcacatg aacttgaaac ttgaagggtg aacaggagtg ggcaagacaa aaggggaaag 300  
 aaggaatgtt ccaggcagag agaaagagaa aagaccagg cacggtatag agccgaggac 360  
 atctgaggaa gaaagggccg ccgggggttg ggccctctgg gtgactggga gaggaaggcg 420  
 ccggaatgga tccagattaa atcggtatgct gtgtgccctg tggaacatg ggggtgtcct 480  
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<210> 8673

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8673

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 ggactacagg cgcctgccac cacgtctggc taattttttg tattttttta gtagcgacag 180

ggtttcaccg tgtagccag atggtcttga tctcctagcc ttgtgatcca cccgcctcgg 240  
 cctcccaaag tgctgggatt accgcgcccc gccgaaagtg ttttaaactt ttgtatacat 300  
 gtattttggt gtaagaaagc actcaatcct aatgagtatg cccaacatg acttgtttgg 360  
 ttataaaata taagtatgtt taaatttaat gtgaaaccct taagtaacaa catatataaa 420  
 cattaactca aacagatgtc aaagctttgc aacactgagt tacacaaaag cctaantagg 480  
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<210> 8674

<211> 522

<212> DNA

<213> Homo sapiens

<400> 8674

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 ttctggcctc anactctttg gttcanatat cacctgtaca agttatgtga cattgggtcaa 180  
 gtcattgtaac ctattttaaaa cctagtttct tcatctataa ttggggataa taacagtaac 240  
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 tgataaatta taataattat tacatgttaa taattattat cttcataatc ttctaattgt 360  
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 agataaccag aaaattcaat taaccaacaa cagtcttaag ctatacttca atgatgactg 480  
 ctaacattct aagattctcc acatagtaga gactactntg ag 522

<210> 8675

<211> 351

<212> DNA

<213> Homo sapiens

<400> 8675

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 tggggaanac aagtgtgaac atgaggaana cagggatgaa ggtgtgaaaa cagatgtgag 180  
 gataagaaga caggtgtaaa ggtgagaaag aggccggnca tgggtggctca cgcctgtaat 240  
 cccagcactg tgggaggcca aggcanatgg ntcantngan gtcaagagtt cgagaccagc 300  
 ctgnccaaca tggcaaaacc ccgtntntac taaaaatata aaattagccg g 351

<210> 8676

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8676

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 tgtaccaggt actctaccta ctacagacta ttttaacttac ccaacaaaat caaaagaggt 180  
 tgctgaccag atttataggg gacataactg tttatattat caaagtgttt gcataaccaa 240  
 aagtacaata ataaagatga aaatgcctcc tatttccttt agaaaataat acttaataag 300  
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<210> 8677

<211> 528

<212> DNA

<213> Homo sapiens

<400> 8677



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<210> 8678

<211> 522

<212> DNA

<213> Homo sapiens

<400> 8678

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 aagggttagt ttcactttaa ccgccaacaa tgtgtaccct ttgaggcaag atggcctgaa 480  
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<210> 8679

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8679

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<210> 8680

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8680

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tcttgaataa aaatcattat ttgacgtcc ataatttact tgccactga atgtctgaac 120
cagtgttctc tttttgtgtt tttctgctct attttatttt acaaattggca cataccatca 180
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taattacaaa tcattgataa ttcatctttt tggttaaaaa caaatccacc aggtagatta 360
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ggtcaaataa aaacaaatac tttaggactt ggttttctgc ncaaattcta aaatatg 537
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<210> 8681

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8681

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atagcctgtg tatgttaaac agtagaaaag aaaagaagtt tggggaataa ggtcaaaatc  180
atcgtgcccc atttaaacad cataaaaatc tcagccttgt cattatttac aacccccagc  240
ataactcccc cccaaaagag aatgccaaac ggaaaattct aaataagatg atgtcctcac  300
gtcgacctaa acagtacaaa tgatgcagca tcataaaaca aagttataat tatgttgtct  360
cacttcctgg ctgccggatg cccacggtac agagcagcca ctccacagga ttttctgagc  420
tctgagctgt ctggggtttt tgtaagaaca tagctttgac tagcattgac caattgattg  480
catttaaaga ctctgtgatg gtttgagggt gcaaaagaag aattccactt   530

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<210> 8682

<211> 534

<212> DNA

<213> Homo sapiens

<400> 8682

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ctaaatcaag tccattttat ttgaaatttt ccacatgccca cacatgtaca tgaaaattcc   60
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cgccacgggg gcaggtcagc gggacgggga caggaggtt ggtcatcgaa aggcaggtga  180
tgcatgtcgg gtcatttagc acctggtcat gagatacggc gagacccccca ggtccaggga  240
aaggtctccc cttaaaacca cgtggagctc tgctgtctct gggcagcttc acgtggacag  300
gcaatgctca gaaggtggcg aaggggctgg agggagatac caccgacggg ctcaggggga  360
ggggcacgca cacacacagg cacgcacatg cttgcccatg aacaccccc gggcacacac  420

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acacccttgc acactcccca cctccctcc accccagaca catcagcaca agcgggtccan 480  
gcttctggct tnactccccg ggaggcttnt gtggccaggg gttcccatgg cggg 534

<210> 8683

<211> 504

<212> DNA

<213> Homo sapiens

<400> 8683

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ttacaggcac atgccaccac acctggctaa tttttgtatt tttagtanaa tcgaggtttc 180  
atcatgttgg tcaggctggg ctcaaactcc tgacttcagg ngatccgccc gcctcggcct 240  
cccaaagngc tgggattaca ggngtgagcc accatgcccc gcctaanaaa tacttttaag 300  
tatattttca ttagctagaa ttgccaatc tgnntaggt taaattactt ggtataggga 360  
gagagaaagc ctatcttacc tgtngctttc ttacttggng gtaacatcca gcagttagtc 420  
tatttataaa cataattact tttcacata tgaaccataa aatatttaac tttctgggtct 480  
atatggttgg ctaccgctgg atcn 504

<210> 8684

<211> 520

<212> DNA

<213> Homo sapiens

<400> 8684

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ctctttcttt tcttgccttt taagagacag ggtctcactc tgtccccag gctggagtgc 180  
agtggcacca tcatggctca ctgaagcctt gaactcctgg gctcaagtga tcttcccact 240

tcagcctccc aagtagctag gaccacaggc acatgccacc atgcttggct aatttttaaa 300  
aattatatttg tagagacggg atgttgccat cttgcctagg ctggtcttga actcctgagt 360  
tttccgtttc ttgttagtat cctgtttttc atcttaaata cacctcaa atctctctggag 420  
atggaattaa aattaagtta ttctttccac attggctttg tttccctcag agtttgncat 480  
attttcaagg cccctaattc tacctcgggg actttcttat 520

<210> 8685

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8685

ataatttcaa aggatacttt ttattctgct ttagtttaag gtgacaagaa gctattttaag 60  
tgattacatt tgaccaa atg tagcactaat agccattgta atcttctccg ccaacaaaat 120  
aagacaattt agaaacattg ttttacttgt cttcacactt tggaggtaga aatcatgaaa 180  
cattaatctc atgattacca taattatgct ctcaaacagc ccaagtgaaa gaacaatcat 240  
tctcacaaaa tgggtgccata atggtttaaag cttaatgtct tgcta atgat caagatgtat 300  
acacaacata aaataaatag aattgcttgt tgtctgctga agttcttggc aatgctaagg 360  
taagttatca ttttactctt tccagttctc aatagccagc cctcaaagag caaggggtgg 420  
taggacaaca ggaatgagtg gaaatggctt ctctggcgga tccctcctaa ctgcagtcac 480  
tcagtctagc aggctcaact tncactgggt cttctggtgg accttg 526

<210> 8686

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8686

agagatttaa cttttgctct gattttccaa ttataaggctc aaacattatt ctagngttt 60

ctgtgagggt gttttatatg anattgacat ttaaataaat cagtgaactc tgagtaatgc 120  
 anactgtcct cctcgatggt agtgggcttg atccagtcag gtgaaggctt gaagagaaaa 180  
 aaagaccgtc ctcttcccag aacaagagaa tctccaaca gataccttg gactggacct 240  
 tgcacatca gctttcctgg gtttccagcc tctgcctca cactccagct tttggacttg 300  
 ttagacttaa taataacaac acaagccaat ccttttaagg aagtttgtct ggagaatctt 360  
 gacaaacaca aacatctact gagagtctct gtccaagttt tgctcacacc ctagcaagag 420  
 gcttctggct taccagttgg gagtgtgagg ttctttgctt gtaagacctg atccaccagc 480  
 ggtacaccag ctnttgccc agggcaagaa cang 514

<210> 8687

<211> 512

<212> DNA

<213> Homo sapiens

<400> 8687

agcagtgcaa aaatatttatt tctgnttccc ctccccacca ctttacaaga tgtaaaattt 60  
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 gaaaaaaaca ctaatacaatt aaaaatatcc gtccctcttc cccactgcta cagcaaattt 180  
 aggataaatc tacagcattc acttacttta gctggttctg atactgagga atactttttt 240  
 atttgagaat caacaccta agacttggt aattgtacag catttgaatc atcactgata 300  
 agtgttccaa gagccacaag aagtctaaaa gtggcttcta ggtcttgnac tacttccaag 360  
 attngtctaa ttagtgacaa acattgggct ttcccttcaa tgttatggctc tttatgaaaa 420  
 caaacagaat agttcagggc caatgtagcc agagcaatgn gaatgntctt attgctccct 480  
 gatttcagtt ctattgcatg ggacatcagt ga 512

<210> 8688

<211> 480

<212> DNA

<213> Homo sapiens

<400> 8688

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aacaggacac ttaatttgct aaactttatt ttatacatat acgtttacat ttactagtca 60
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acagttacag gcttttgtct cttcaagaat ccaattcacc cctgggtttc gcttggcaca 180
caccccagga gaacgtcgat gcacacagct gtgtagctgc aaacggaaac cactctcttt 240
tctctcgtat ttttcagtca gactcactca ggattttgaa atgaatcatc acgagaaatt 300
tgttttaaag ttgaatcact gagaacatct aacaactgtt cacattcttt atcacaaaaa 360
ctgaagtcgg aaaagacgcc ctgaaaactt gcaagggcta atactctatg atagaatatt 420
actactgttc accatgntaa nacatttact tactaccata cncctgaaca gncncggnan 480

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<210> 8689

<211> 502

<212> DNA

<213> Homo sapiens

<400> 8689

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cctcttttaa aaactctatt tggtgcgtgc ccacggtgct gcgtcccgtc agacataacct 60
gtatagatct ctctatttat atatatatat atataaaagg ttcttttagca gttaaataga 120
ttccaatatg aacgtctccc aggacaaagc tgcgtctcgc ctctgggtca cacgcactctg 180
tgcggctggg gtgtatgtgc cgcgtcacag cagtaccata taaatacgtt gatttgaacg 240
cagtttccct gtgngggtaa aaacacattc ctgacaagtg acaagcagaa gagtccggca 300
gctgcagcgc ctactcggc tgggacctcg tacttgaaga tgacgtgaa gagccggccg 360
ccagcccgtc cggccagcca cgcgttcttg atgacggcca gcttggaggt tttcgaacgc 420
aaggctngct gggaanttgg ggtganagga acgggccatg gccttnatga ccnccaaatc 480
cggccaagnt tccggacaat gn 502

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<210> 8690

<211> 468

<212> DNA

<213> Homo sapiens

<400> 8690

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gatagccaaa agcaatttat tatagtttag cctcaaaaaa ataaaaataa aaaaattatc   60
cagnggttat gaggagtcta ggaaaacctg tcccagtaat gccaacttgg aggtgaaggg   120
ctgactgggg cagctganaa gtgggacctt ctgtttggca ggcttcctct cccttgccctg   180
gtcatggttt tctggtgaga agagtgttcc tggccttgct ggaggttccc atggccccga   240
actaacagtg tttttctgaa atttcgacct gcaccgtttg agagagtaga attccctcat   300
caagtcctcc acctcccact gctcttccct cagcctctgg cagcagtgca gggcggcagg   360
gtcgatgggg tgagcttctg tgttgaagat gtacccccca gccccagga tgcactcccc   420
atagggggtg atcaccngt cnaaggtgga ccnnttggtg nggannaa                   468

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<210> 8691

<211> 523

<212> DNA

<213> Homo sapiens

<400> 8691

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aattgctaag aattttatgt agcaagtttg tttattcagt aacataatca caaaatagaa   60
atatcacatt cacagaagtg gaaataaaga gcataaaata tttttaaac aggaaagcaa   120
tgggatcact ttcaagagcc tcaaagaaaa cttttaattt acaatgctac gctttcatga   180
ttaataggat taatgtgtgg tttttctttg ataaaagtag tcatgatttt ttagtattac   240
atacattcat tgcatatgac agacactctg ataaaaatgt actgttctaa ttacttaatt   300
gttttggtct atttaacacc ttgtttaaat agctttaaga catataagag gcaaataatt   360
atatatactt aaggataaaa ttttcagata tttatccaaa cacacattta cccattaaat   420
tagaacacca actgcttaat atgtaaaact agtttgaaat catgactctt gattaaatac   480
atacttcaac atctctcatg agacttccca acttcaaaaa tga                       523

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<210> 8692

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8692

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aagttttcat ggtttaaaca ttattgtaa gtcctagatg aaacatactg aaaagattat   60
ttttgcttta atcctaatat gctaagaaaa gttcattggc acaaatatcc agaggtat   120
tacagtttca ttacctttg gtggcaaaga gtattttgct aaccgtatgg atacagtcag   180
atagtttcca atgcacagct ttatgctaaa gagaattcaa atgtgtctct ttttttgct   240
aaaaaagga tgtaaaaagt ccaatatgaa acagaacgag tgcaacacga aatacaaaat   300
atgcctatca tgtaggcttt tgaacagtta atagctctac gtgttatcta taaacatttt   360
ttactagtaa catcactatt gtataaatat taaaaacaaa aatgacatta aaaaaatagc   420
atatgaactt tacaaaaatg gctactttna gntttcctaa ctaaaatcgg aattcaaatn   480
cncaancaaa tttncctacc taatcaaacc cncaccgg accggttttt   530

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<210> 8693

<211> 498

<212> DNA

<213> Homo sapiens

<400> 8693

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aacagaaaaa agtcaaata caattttaat agacttttaa acagtgtaca agtaaaaaac   60
actggttttg tttttcaaaa gttgaaggaa gatatccagt cattaaacag tctacaaaac   120
atatgccagt aaattacata aaagactatg tacaatataa aaagagctga aaacagtcct   180
cactgtaaaa ataattttaa acaaaacttt caattttaaa tatcatctat agcacacaaa   240
catcatgcaa atggaaaact aaatatactg cattcttttag ttagccaaa taaattcaga   300
ttgagacatc ttataagtag ggaaatggcc attcaatagc atttttttct ctggcagtaa   360
tggtcctagc tgggtgtttt atgcataaag aacagctata tttcaaacc tttttattgt   420

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aataaatact aaagcaacag aggaataactt tattaattta ggagtgatgt tcaaaaatgg 480  
nctgaaaaat aaangctn 498

<210> 8694

<211> 518

<212> DNA

<213> Homo sapiens

<400> 8694

caaataccat actataccca attttagtca atttgtaaata tataaattat attattttgtg 60  
ctacagtttg tgacatttaa atcttattag aagataagca ccaaacctat taaaataaaa 120  
aatagataaa atgctgtggt tttcccagca gcaggatatt gtgtacgtcc tgtaggctgt 180  
aaacttatgc tcccttctcc tgaaacaatg tttttgataa acttgccctt ctcccttgaa 240  
acttttcctg aaaacagact ttgtctttaa ctgtagtctt ggaaaatgta caaaagagca 300  
aaactgcccc tctcggcggg acggccgcat gttacagaaa ggcttcgtct ctgctgctga 360  
tgccaccacg agccctgccc agcgtcacc aggagggcgg gctgcggccc ccggggctct 420  
ggggagggtc tcaactcagag ggtaaaaagc tccacagaag agtcacccca gagcacctgt 480  
cggagaccct gcgtcccttc cctnangggg ctgnnaan 518

<210> 8695

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8695

cctcttggtt atttggttgg tccagctaga tatcggaagc cactcgaact tttcgggaaa 60  
gtatttgga atttcaatct tctccacggg aagacgatag aaatcggcaa ctctctgcct 120  
caggagccg gcagtcacc cctgggccgc gttccacacc aggtccaggg caggggcata 180  
gtcctctca ccagggatgc gcacctgtgt cctcagcagc acgtcctggg ggcccaagtt 240

ttcgcctttc tgaaggggct ctaagcagat ctcaattctc cgtcctagtt tatattccct 300  
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 tctgaggtgg gctggggacg ggacaccgaa ctccaggaaa ggaggcaagg tcatggcctg 420  
 agacttcagc tccgccagcg tggcatcttc tgagatctct atgtctccca agtagaggag 480  
 agaaacttgc gcaggcttcg ttcccagaag caccttggct ggaagtggct n 531

<210> 8696

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8696

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 ggattctttc atgagaattt cactaagaaa acaatagttt tagtctcaat cccttcatag 120  
 ttggaagcat aatgttccctg aaccctccac tcccagatat agacaaatat ttcttcttcc 180  
 aaagcagtaa agaggtctag atgagctgct ggccatttag gggtgaggga ggcatttgag 240  
 ggcaactgggc ctggtcaagg agtaataggg gtattcccag gagctactaa aggctggctg 300  
 ctgagctcct gaacaggggtt gactgggtggg gatccctcag ggccgagacc aggtggcgaa 360  
 cccgccgctg ctgttgcagc caatagagca tctccacttt gtcactcttc atcttgtcca 420  
 ggtagggccg ccccttgaaa gaatcactgg cttcgcccga agattaactc tatctcctta 480  
 nganggggaac ccaagaagac tcnnttaagt tgaactttct gnngaaaagg ctttcg 536

<210> 8697

<211> 507

<212> DNA

<213> Homo sapiens

<400> 8697

cgaagttngt tagccatgac atgggcttct ttatcagctt tgggaggcct ttttgtctcc 60

tgctttttct ttaggaaagn gctcacactt tcagctgcgt tttctacagc tcctaacttg 120  
aataaaaaaa atagngcagg taacttctcc attttcctta gtttttcaac tanaagngga 180  
aacatggnga tcatgttttc tggactcaaa tctgcttcag gactaanatt ctgaagtncc 240  
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tcttcatatt tcctagcatc catcttttta atgactaatt tatngttaa atgaatgaag 360  
ttttctgggc ncagttcctg ggcccagggc caacttttcc aaatttgaaa catggcatca 420  
tacagctgga tgctttctcg aggtgaaagg gtaagatcag gaggggaatc catacctttc 480  
aatatgatcc gttggtagtg cagcnca 507

<210> 8698

<211> 513

<212> DNA

<213> Homo sapiens

<400> 8698

aaaaaaacaa agcaaaccct gggatcaact ttattgctga tggctgaagc ctctcctcc 60  
ctatcccctt ggtctttcag gnggtccaaa gcccctccag gatagcacag tgcttaggct 120  
ctgctgggcc agaggcaagg gagacaatct atctcccag cctgccctgg ccagtcctt 180  
tcctgcccc taccacccc tattgcacat caaatcatgt aaacatggct atggggatgg 240  
cccanaacag cagtgaggca gattgatgtg taaacagatt tgggatcagg ggctagacct 300  
agtcaccag ccctaccca tgctgaggcc acagttaagt atggaaaagc aggaggtcct 360  
gttcccaaac tctggctcan attatgcaat agtgcanatg gctctgctcc cctctgccac 420  
ccaccctctc agattccagg tcctgaggtc caagtagcct tgggcttccc tccaggccta 480  
ggcagcagat ggcagtgtcc agttttttcc ttc 513

<210> 8699

<211> 434

<212> DNA

<213> Homo sapiens

<400> 8699

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agtttttttc tctttatttc ttatggataa aatgcgacat acatattcta cttacaatg   60
aaagctgatg ggacagaaga atcaatatta gcttttgaga tgggcaaaga cataaaacat  120
tggcgttttc tagtgtcatg atttgtcaaa ttagtttttag aaaatggtaa atgtctgaca  180
gaaaaaaaaat ttttaattaa ggtgtatgta agtgtgtaaa actgttaaaa atgcttgaaa  240
acaaacattt taatcccatg acatattatt tttatttggt gaaaacagct aaaaactgcc  300
tgtcagagaa actatttaac cctttaacat aaagtctttt aaggcacata aacatttatg  360
aagaacagtt gaaatatgct cgctaggaag aaggnnccatt ttaactcata tgagcattca  420
gtcaagngaa nncn                                     434

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<210> 8700

<211> 584

<212> DNA

<213> Homo sapiens

<400> 8700

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aaagtttatt catgaatggt ttaatttccc tttaaagcta gaaaataaag atcatttacc   60
ttctgatctt cgtttttcca aatggtaata agcattgatc cttccctcta ataaagggtga  120
aatttttaaa atctcagtga ataggaatgt gcaaagctct aagaaaacta ttacttgaat  180
gtctctaaag tggtagaaga tcacaagttg ggaataccct caaaaactat atttttaccc  240
tactgttaaa acttgttttc aaagtgggtg aatctgaaag atcacagttc aaaagtaatt  300
cccataccia ataatatcaa ctttaggtga acatctaagt atttaagagt attatttttc  360
ttggctgggt gcggcagctc acacctgtaa tcccagcact ttgggaggcc gaggcaggcg  420
gattcaggag tttagacca gcctgaccaa catggtgaaa ccttgnctct actaaaaata  480
caaaaattac cggggcttgt tggtcacac ctgtaatccc agcttctcag gcggctgacc  540
ntgagaatcc tttgaacca ggaggcggaa ntgcatgagg ggaa                               584

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<210> 8701

<211> 588

<212> DNA

<213> Homo sapiens

<400> 8701

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gctgagaaaa ggcaatgtat attatagttc tgtggtagta ctgataacat tcaagtcatt   60
cttaggcacc agtcttacgt atatgaagtc actttttcat tccattgtac aaaactcata  120
ttttgagaaa aatctaatag ctaatagtct ccaacaccat atgatcataa tccttttagct  180
taagtagaga tctacttatt aaatgaggca ccatcaacct aaggaaagat aagctgtaag  240
agaatgaaga cagaggtata tcaagtaaca agaacattct tccttatcag gataaaatgt  300
ttatcagtat tcaaataaaa tatcttaaat ggaaagagac aggaaagaac atggttaaata  360
cacagaaaat gaagaaaggg agaagctgat catgatcttg tgcaacatta tgacagcact  420
aaggnattac cgtatccaat acaaggatac ttaatagacc naagaattta aaatcccagg  480
gaactggaat accagcccca aagaagcccc tctttgtggg ggtcacaccc caaanggcatt  540
caccaatttg gaaattttta atttagagac nncnggtttt tnttggng                    588

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<210> 8702

<211> 587

<212> DNA

<213> Homo sapiens

<400> 8702

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gcaaccatag tgtgaacgtt cagcattgca tactgaaaaa ctttgaatct catgtaagaa   60
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ttgttttcct acctttatta ccagcgtag ctgtaatgag gattctagaa aaaagagctg  180
gaaaaaagaa gcatccccca actcccacaa tgtagcactt cagttctggc ctcttttagga  240
ttggggcagt gtctcatctc tttattgtgt attcgtagac agtaagaggg agtctcactt  300
actacttgga aaagttttaa agacctaata cttttgtgtg tgtgtgggaa ctaggccaca  360
aaagtgcatt atgaaagagt ttccttacga tcatgtccgg attcaaattt caagtagttt  420

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gcatgatctt catgtaatat ctgggacaca ccttcataat tgacaagcct tttttttata 480  
 taataataag aatggctaaa tggagtgagg gatatcattc attccgcccc atgaccttat 540  
 cttttcaggn gggaaatcaa tggcnaaagg aaatgggtctt tccaggn 587

<210> 8703

<211> 578

<212> DNA

<213> Homo sapiens

<400> 8703

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 tctctcccc tttccctttc cacgagtttt caagatgtgg ccagtcagt gcattgctgc 180  
 cttctatgac ctatgaacca tgggcagcaa gaggactggt gaccggggga catggtgagg 240  
 tccagtgtgc caggaacatg gtaagtcccc acattgcggg ggagggaaca attcagagac 300  
 aggctcagct ggaggccgca cagaggagaa atgtcactct gtcccatctt cctgtcattc 360  
 agctgagctc agaccaagtg agcacctaag aatcatttac ccccaaagga tgtttcaagt 420  
 gagatgcaat gntctctaac cattattctc tttagaaatta aggggtggcgg ggcnggaatc 480  
 aaacnnatgt ttgaaatggc tttattctc ctagtggcta atgcttgtct tgggtttatt 540  
 tgcngaaata aacccaaatg gnantaaacc accntcan 578

<210> 8704

<211> 505

<212> DNA

<213> Homo sapiens

<400> 8704

gcttcaggcg cttttattag gttccactgc agggctgggg tcaatgtaat gcaaattcaa 60  
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gagcagctgg ttggaggag ccagggccag gccccacctc ctctcgggac caggagactg 180  
gcagccgctg tgttcacctg ggcaggtgtg caccagctca cccccactgg attatggtgc 240  
tggtagcatg agaggggtgtg tccacaccaa gggcaggtga agatgcgagg tggggctgag 300  
acctccttcc cacaagagga ggtggctgag cctcccaggg cctgaactct cacagcaggg 360  
ctcaccacca agcctgtatg cttagctctg actctctttg gacaataaaa taaagtgcac 420  
tactgaacaa agagtaactc aaaaccagaa tcagacaaat cgccangntt ttccttagct 480  
naangacnaa ngaaacntga atgat 505

<210> 8705

<211> 584

<212> DNA

<213> Homo sapiens

<400> 8705

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gcctggacat ttgcccacca cgggtggagg gcctctcttg gcatcaacca tccacgacct 180  
cctacggcac catctctcct gccaaagtgc ccatgggggt ctccaggaag aaaaccagcc 240  
ttgggggatt ccaaggccca gggagggtgg gaagctgccc acgccctcag gctgtgcccc 300  
gtctcatgct caccatttct ttctatggcc aaagggaagt cgctggacga gggaggtccc 360  
tctgctggga tgagcagcac agcacggctg gggccccagg tcacagaaat ggggtgcaggg 420  
atcctgggac ctgggctgga tgggcacccg ctttgggatt tcctctggtt aacctgtgta 480  
tgggtccaagg aacantgtag gaangggctt ggcattgggt ggggcttgca tgtccgggct 540  
ttttcgtaac ccaaccaana tcttcnggag gaacagagga gang 584

<210> 8706

<211> 529

<212> DNA

<213> Homo sapiens



<400> 8706

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ggtttcctct gtcactttta attaagacac aagttgagta agcagcctcc acaggctgta 60
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tggaggagtg agactgggtc cacagtgaca ttattgctga cctcttctgt gtgaggaaaa 180
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ggagggggaa ataactgtac agccctttta gccccagct ctggagtggc agacagcaat 300
gaggccacat ccctggagct gcccggggga agtgggtgag gaaccaaagc cgtgggtccct 360
gtagagcaac tgtggggagg ggagggccag tcccctgctc agtcctgacc acataagcct 420
tggtcacagg tgtaggtgga nagggcactg gcggacactg ncctaagggtg catcctgagg 480
catttaggng ggccccatt taggcatgc ttttnattgg ccttgaccn 529

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<210> 8707

<211> 582

<212> DNA

<213> Homo sapiens

<400> 8707

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attttatggg tcctcaatta ctgcagatag acagtacagt aagagacagt acagtaagaa 180
ataaaaaggc tgaaaggaat gttttggaca ttataggagg cctaactttg ggtgggtgtag 240
atacagatca aaatgaattc tcaaaccaga gatgggcttt gtggaatggg cctaaagtag 300
tgacaaggta gtcacagact tctggaggag ggtacttggg ctggtgtcta cctggcatat 360
ttaggaacat tccataacga gatgtaatat cagcacaatt gattatttag cccaaggctct 420
cagtcagttg atggctacaa gtgttaagta ccacaagccc cacctctatc tctgtatggt 480
tagagtgcaa atattttccc catgcttctc gtcccctant cactgccacc ccccttcggc 540
cttccttatt cttacaggac ttaacagctg gcacctanaa ct 582

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<210> 8708

<211> 584

<212> DNA

<213> Homo sapiens

<400> 8708

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gggtcttggt ttgatccaaa cattgatgtt ttaaagggtg tacacaatat ttgttaaaaa 120
gaacatataa aaataccttt ttagaagcct ctataagaaa gaaaatacaa agtttaaccc 180
cacaactttc ctctttgcta gaactgtaaa ctactgctac agttttaaat agactttttg 240
ttgtttaaac tatacatcca ggaaaatcta aaaaaattaa agaaacgtgc atataaacga 300
ttgcatagca gaacatgaac attaactgca aacagtaaag aaatgaaagt tagaaatact 360
atcaaataa caaaggttct agaatcaatc ctttaaacac attccacaaa cagtatttaa 420
aatccatcgt tgtattcttt acaggcaaag cctagattac taaaaccgaa attgaaaaaa 480
gtaatcctct aaaagggaat cgtttgccat aattcttact tgnatctgta agcagcaatc 540
tgagatttta aaaganctac tttttattct gaaangaaat ggac 584
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<210> 8709

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8709

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gcaacctctg cctcccaggt tcaagcgatt ctctgcctc agcctcccaa gcagctggga 120
ttacaggcgc ccgccaccac gcctggctaa ttttgtattt ttagtagaga tggggtttct 180
ccatgttggt caggctggtc ttgaactccc aacctcaggt gatcctcctg cttcagcctc 240
ccaaagtgtt gggattacaa gcgtgggcca ccacgccaag cggtgaatgc ccatttagtt 300
gtattcataa ttcccgtgcc atgtgttcga attgaattag caatatgccg aatattaata 360
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gtattcaaat gcttggttatt gcttggtcgt tcaataaaaa tctgattggt gagattatag 420  
 aggtatcggg acacaaatat atgaatgttt ctcataatit ctaaaacatc aaggccctgt 480  
 tccaaagtct gactgggaag atgtgcctct gcataaccag ccataacgct gagcagctta 540  
 agttctcatc tcactataag tggncaccg 569

<210> 8710

<211> 557

<212> DNA

<213> Homo sapiens

<400> 8710

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 gagaagaagc aaaaaagtta tcagtttaca aacaaggata acaggtgatt tcaacaaaag 180  
 ataagaaact tttttttcca agaatacaaaa tttcaagtat tattccanat gacatggcaa 240  
 agctagcaca ggcggaagcc aaggngcccc tcaggctctg tagggtcttg gaggaagggc 300  
 ccgggcagca tgaggggagcg gcgcgtcctg ggacctgcct ccagccctgg gcttggggcc 360  
 gtggtcactc acacaaggga gcagcacgtc ctgggacctg cgtccagccc caggctcggg 420  
 gcccgcggtc actcacacaa gggagcacat gtcctgggac ctgcgtccag ccccagcttn 480  
 gggccggggc acttaccggt aacaaggacg ataacttgnn ggccccttga gggtacaagt 540  
 tttggncctg gaaggtt 557

<210> 8711

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8711

cagagaatgg cactttattt ttaagacttg atttttttgc catgattatc taccaattct 60

tccatgatgg tgtcatcctc ttcaacagtg accaggacct tcttgcccac tagattaaag 120  
 atgtcttcag gaggatagcc tttgggctca cccaccttca cggtgagcat gtccattggt 180  
 agaatggtgc cticcgggaat tttcactttg gccaccacag acttgcccag cttctcattg 240  
 caggccatct cacagggcag cagctgcttg gttggggagc ccagggcacg ctccacaaga 300  
 cgcactgacc gcaccagctc ggccagtctt ccaggctcca gcgaggccga gtggtcactc 360  
 cccitccagg tcttgtccaa agttatgtga cgttccaaca ccttgggtccc cagagccact 420  
 gcggccacag atatcgctat gcctgtttca tgcccagaat accctatggg aatgtcagga 480  
 aagagcttct gatnttcna nannaccnc ang 514

<210> 8712

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8712

agggtctgcg aagtttttaa tgttcaaggg gctgtccgtt ttgaaagtg aaaaggaatt 60  
 aacatattta ggtccactca tagggaggag gaaaaagaaa ttctggcata gcacaggggt 120  
 caggaaacta tggcccacca cctgtcgttg tcagtagttt ccctggagcc cagccatgca 180  
 aatggttgac atgctgccga tggccgctct gcagaatcgc tgggactaag accacaggtc 240  
 cagaaagctt caaatggtta ctatcgggcc ctccacagaa gtctgcccac tctcataca 300  
 gcatatgatg aaatacactg cattatactg aatattgaaa aaaaatatac tgcagctact 360  
 gaaaaataaa cacaaagtgt atatacaaac agggaaagat gtccaagaaa tcatgaagaa 420  
 agttttatatt taaactctgc ctggcttctg agggccacaa ggtcccgtca attnggttcc 480  
 tanggttcca tggagaaagg aattgaagtc tttggnaaaa ttganccttg ggangggtaa 540  
 cnaggacttt gggcacantg gttaacgggg tcccaccgg n 581

<210> 8713

<211> 440

<212> DNA

<213> Homo sapiens

<400> 8713

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acagctgggc caccgggggt gacatcacgt attggtaggt ccatgatgcc cccctgagcc 60
acaaaaccag caagttttta ttagggattt taaaagggga ggggtgtatg aacagggagt 120
aggtcacaaa gatcacatgc ttcaaagggc anaaggcaga gcaaagatga catgcttctg 180
aagaaacagg accagagcaa aatcagaaac tcctgataag ggtctatgtt cagcgggtgca 240
tgtattgnct tgataaacat cttaacagaa aacagggttc agagcaaaga accggcctga 300
cctcaaattt accaggactg gggtttccca atcctagtaa gcctgagggt actgcaggag 360
accagggcgt atctcagtcc ttatctnaac cacatnggac agacactncc anagnggncg 420
tttatanacc tccccagga 440
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<210> 8714

<211> 440

<212> DNA

<213> Homo sapiens

<400> 8714

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ccatgaaaaa gattccactt tatTTtattt attattgtta ttgttatttt tacaacaat 60
anatttgctg caacatgctc tggctcatat tattgaatna aaaaatttaa cacatttcaa 120
aaatatcaaa aatacactat aatgagtctt aagactacaa tacgacaatg attgcacaaa 180
accgtaagat atgagcccac tgtctggatg acatccattg gcaacagtga gagaaaaccc 240
tatagcatct gggagaagtg catgaaattt agaatncaag gaacttatgt gtgactgact 300
gatcaccaaa tgaggcaaac agagcaggat tgactgtagc tgctttttct caatctagga 360
agngcttacc ccaactatgg ggcaaangtc actaactgga aanattaact tgccttnatg 420
atngggagtc gnaangcctc 440
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<210> 8715

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8715

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ataataaaga atatggtaat ttaaatgaca aaaattgtat tngaaatag cgcactctat   60
actgagatga atgaggggaa aaaagtcaaa actcctttca aaactatatt caaagcatca  120
gaaaaaattt ttttttcttt ttacaaagtt atgtataagt catagggacc accaaatact  180
gaaatatgaa gactctatga ccaaagttca aaactgattt taaggaactg tgtgaagcaa  240
gacaggaaaa tttgtattta acactctata gaacttcaca gtaaagctgg aatttagaga  300
ctaattggctt aacaggagta ctgccaacaa ggcctttcct ttctcagaat catctcctaa  360
tattcgtata ccattgacaa gttgtaacag cagacttaga ctttngttt tcttaagatg  420
gggcttaata aggtgcacaa atatgctgat atcctgnatt atgagcatgt aaattattct  480
caggggttaa gaaaatcccg aaaagaatgt aagtntctca gtccacggct tgcntcatca  540
acaaaaggnc aggn                                                    554

```

<210> 8716

<211> 582

<212> DNA

<213> Homo sapiens

<400> 8716

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aaaaaaacag gacccagttt actactgaag ctgcagcgag gttacagagg cgtcttgggg   60
ctcagtcctt gagctccggg acgcccaact gggagtgggg cctccactct cctacgtaca  120
gacaccccca tagggaaacg ctcacatgct gtcctgctgg gacgctgcag gcctggccgt  180
tctgtggccg catccgcgtc cgggtccctg tgtcctggct gggcgagccg gggagggggc  240
tgattcctgg gagcggttca gcagcgagtt ctgaatgtct tccaggactt cacggaagag  300
ctcctctcgg gacttcatgc cgtccaggta gaccattcc acaccgttgg cctccatctc  360
ctgcctatac ttctgtgata tgggccacac gtggccatcg aagaggccgg ggggatcagg  420
gactgtgtag ttgcgggtac ttctcctcca cttgcactct tcatacggga cggtcaggaa  480

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gtaccggcgg ctgtacaagt ccaccagggg cttgtaactg tagagcagga agccttnca 540  
gaagaagatt tnggtgtccg aggccttggc tgacctgacc cc 582

<210> 8717

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8717

aaaattatcc aaatgtgaac ttactggaaa gagaaaaaac aagtttaaag aagaaatttt 60  
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ttataaatgn gtaagacaga cagcatttac tattgagtcc tacagggaaa cacacagaag 180  
caattcattg cttgggagtg aaactatcaa ctaatcttac gactactggt tctccaagtc 240  
ccctaataaa gaaaatttta acctcatgat catttcaagg gaatttcttt ttcaactgnc 300  
acataataac ttggtaacnc aggaccaata tacatgttct gagttttaaa aatatactcc 360  
acctaaacta tctgnctagt ttaatctttc tagttatcat ttaacctaaa atgagagacc 420  
aaatcttatt tccattaaaa aaaatgaaaa aaaggcccaa tgganccttt tgaaagnng 480  
taaaccctgg ggcttaaac aatccgntt atcaaccctt ttgnccaaaa aaacggttgg 540  
cctnttgat taaaaatggc ccnccc 567

<210> 8718

<211> 577

<212> DNA

<213> Homo sapiens

<400> 8718

agttttctat caaccgagaa tgtttttatt acccatcaa tcctgaagga tcatttcacc 60  
aaataggaat ttggagtga cagagtttg ttttgaggca gtcttgctct gttgccagg 120  
ctggagtga gtggcaggat cttggctcac tgcaacctcc acctcccggg ttcaagtaat 180

tctcgtgcct cagcctccca agtagctgag attacaggca tgtgccacca tgcctggcta 240  
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 ctgacttcaa gtgatctgcc caccttggtc tcccaaagtg ctgggattac aggtgtgagc 360  
 caccgtgccc agccacaagt tgatagttct tctggcacta aaagaacttg tctcacttcc 420  
 ttctggcctc catggtttcc agagagaaat ccactgtcat ctgagttact tttccctcta 480  
 gttaagattt cacttctttc ttganccttc aacttttttc tggctttaag ttttcaaaaa 540  
 tctggcctat catggacttn ttggggttac ttacttn 577

<210> 8719

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8719

caactttttg caaagcagca tagcaacaat cgtgattgta gcacttgcct gaggttgtgg 60  
 tcacaaccaa cgtagtaaac atcatttgca tatcagtaag aaaaagaaaa caggaggaga 120  
 tgagttctta caaaacaaag cagattctag agatttact gtgtctgcat tgctccttcc 180  
 acgcaagttc tcccttagct gaccgcaatc ttgttttctt ccaggaagtg aggaaactgg 240  
 tgtttgggaa cgccgtcagt agcacttggc ttttccacat ctgcactgat acccgactgg 300  
 gagccatcca tcttgagac agtggcgta ttcacaacgg aggtggcccc caaggaaacc 360  
 gggagggtag gaaccccccc actctggatc acagagatct cattggtctt cacggccaga 420  
 ccgccattga gcatgctggt gtactggtc cacacaacag ggtccacatt cactgaaggg 480  
 gccnggaatt ccttgggnaa gaattttggg actctttttc cgncccnacc taacaaancc 540  
 tnggggtctt ganggccact tc 562

<210> 8720

<211> 575

<212> DNA

<213> Homo sapiens



<400> 8720

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caggtttgca nagtgggaagt ttaatgggac catcaccng ataccatc acagcagtcc 60
caggctggag gccccaggct ntggccgcct ntcccagcat ggngggcctg ganagagcac 120
cagcaccacc tcccactttc cctggggat tgctttgccc ctgtgcctcc caccaccagga 180
agctacaana nacaggctgt cctgtcccca cactntccct gggtcctggg actccctgtt 240
ctgaggggct aaggttgcct ggggccanag ggccctcccc aggacaacc atcctntccc 300
tgngtccctt gccccccaca ctgagggaat gtctgtgtcc ttgttcctct gccagggggc 360
aactgaggct gccaaaccca ggggcggggt gcaagggtctg tgcggggagg gtggctcana 420
tccctgcaag gaggcntgct gcaggacag cacaccttgg gcccccggc agacattaag 480
gccaatgtgg cggcaccaat aggcttgttg ggcccttgcc ccggggcngg aacttgaag 540
ggcttggatt ccggggcttg gcccaattta atttt 575
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<210> 8721

<211> 475

<212> DNA

<213> Homo sapiens

<400> 8721

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ctctaaactt ctcttctcac ttcatttcat ccatttgatc ttcaattact gatacctttt 60
cttccacttg attgaatcag ctactgaagc ttgggcatgc atcacatagt tctcngcca 120
tggttttcag ctccatcggt tcatthaagg ncttctctac actgttnatt ctagttagcc 180
atthtgcata atcttttttc aaggttttta gcttctttgt gatgggttcg aacatcctcc 240
tttagcttgg agaagtttgt tattaccgat catctaaagc cttcttctct cagctcgtca 300
aagtaaaagt ccagctttgt tccattgctg gcgaggagct gcgttccttt ggaggagaag 360
aggcgctctg atgtttaaaa ttttcagctt ttctgctctg gtttctcccc atctttgngg 420
ttttatcnac ttttggcctt tgatgatggt gatgnncaaa ngggttttgg ngngg 475
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<210> 8722

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8722

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gggaagggac aacggttcta cgattaacaa caggaactga taggaaccag aagctccaag 120
gatttaaaaa aaaataaaat atatatttat acatttatat atatatatat atatcacgtt 180
atgtatgtga gtcccagaca agcaggaagc agcagcaaga agcaactagc acacagaaac 240
accctgctgt gtgcactaca cattcaagca aagccattcc tctagctagg acgcagcaat 300
ccccaccctc ccacctacgg gcaaaagaga acagctgaaa acaaacttcc ctctttaagg 360
gccactcagt aatttttgtc ctcttgcca ggaaaaagaa agaaaaacaa aacaaaacag 420
aaaaggctga tcttgccttg aaagcggcca gnggctatct ctctctctgc caaagcagga 480
cacgtattct tacacagang gccacatngt gncctacaa tncctanaca gt 532
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<210> 8723

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8723

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agtaataaaa gaatcattta ctattttcac tgagtttaca gtgttgggta ctactgnnta 60
catcatttta atgaaagtat ttataaaaac atctgcaata gttcatatca gaaaacaaag 120
tttctctcaa taaagacctt aaaaaataaa tttttatctt cattaactcc ctttctggga 180
atgggaatga aataacatgc ttctgtttta aaaaaaaaaa aaaaaaaaaa cncaaaatit 240
aataccctaa ttaggtttct ggaaaaaaag actaccctag caataatitit taacattcta 300
catttcatct atttctaaag acactccctt tacaaaatct tttagtttta tatattagga 360
caatcaggtt tanagtctca cataaataaa atagccncat tagaaggcat actgaagaat 420
caaatgggtt agccacattg gctgntccat tcacggattc tctaananc gttgggagga 480
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gcctataaaa ctggtcacgt tagctaagta aaagggcnat ctgaccatgn tctacacctg 540  
ngctttacaa aatccgattt ggggcccgg 569

<210> 8724

<211> 461

<212> DNA

<213> Homo sapiens

<400> 8724

ggaatgtcac tagacaatta aacttttatt gaagcgtaaa ttgtggtaca gaaatacatt 60  
tcaactgatt taagtccaac accagtgaag ggagaaatta tggcaccaaa actttccctc 120  
ttctatcata cgatgattta gattatgatt caaactacat ttctcttttc taggctttgt 180  
cccataaaaa tttgtgcagt ttttcaacat tagaattctt aattctattg gaaacaaaac 240  
aaaacaaaac aaaacaaaaa caaaacaaa ccagacctca agtcaacaaa tctattggga 300  
tattgtttac gaacaaagtc caccttaagc attggctcctc aaaacagagc tctcaaaaat 360  
attaggtgct gngctcatta cagaatcaaa ctgacacact gattgaaaac ttcctcaatg 420  
aaattttcaa tcaacaacat gctnnaaata aaagnnaann g 461

<210> 8725

<211> 576

<212> DNA

<213> Homo sapiens

<400> 8725

gntttctatt aatcatttac ttgtctcagc agatattgcc acacagatat agagactaac 60  
acgggtctaa gcatatagac aactgttaaa aagaaataac atgtcataca gtttgtgaca 120  
ctccacagac gtttttgtac ttgatgaag aatgtggata ctacaaaaga aaatcagggt 180  
ttaacaaaac tcttacagaa atgacatata caatatattc atatatatat acacacgcat 240  
tgtgtgtgac aggttgggat gtgtgtgagt atatatgaat atattggtgt atatatatat 300

ttacctttat ttatgcatgg gatacaacaa tacacctttt ttttcttcat atgaaccacc 360  
 ctcccactgc ccattaggtg ctagtcagta ctatttaaaa tacagaaatc ctgttcatta 420  
 aaatatctta attaaaatag acatttcttc ccttagaaaa agaattaaaa ccttttaggg 480  
 cctagcttta aaagcaacat gctacagctg attnatittg gtagtggttt tatggatgtg 540  
 aaaatattac cactgaactg caggaactnt aattgg 576

<210> 8726

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8726

acttcacaca ttttgattta ttgaatacca ctgggataat acaaatttaa taattggaac 60  
 attatttcat aaccattttt taaaattaaa ttttatctca ttcagccatt cagccagttt 120  
 ttttttttta cattttatta ataccaaagt gaaaaatggc ctgtgcttat actacaagga 180  
 tctcatatga atgcagtcct gattgttcga cacagcaaga aaattcactt tcacagtcaa 240  
 caagtcactt tactcagtag aacacaaagt aaatggttta taactccaat atttgcaagg 300  
 aaaatacagt acaaattact aaaaaatact aaaatataga attgngttca ggcatntcca 360  
 ctacatcaat cgcagcagta acctgaaatt tgaaactttt aataaaaagt tcttaaatat 420  
 aaattatatg gcaaagtca gtacattgct tttttcagtc tctttttcag tgttttgcag 480  
 tagaacangg ttcctaccct tnaccttct taggttttaa aaacccaaac cacaantctg 540  
 tggggagtcc tttnctttat gng 563

<210> 8727

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8727

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aagtgggtcc tgggtgcaggc cgccttcttc accaagacct tctgctcctt tcctcctccg 120  
cttcctgctg ctgcggtggg gccgtctgac agcgggcagc tgtgcctggc cctccctcct 180  
tggtgtgtg ccatcttcct gccgtctgac agcgggcagc tgtgcctggc cctccctcct 240  
gtacatgggg ctcccaggct gtctctgtgt ctgccccctc tgcagggcgc tggcagctgt 300  
gtcctccggg cgcttcttct tcttctctt cctcttcccg tggggagccg cagtggcctc 360  
cctgatgtgc tgtgggaggc acgtctctga gccagcctc tgcggctctc ccacaaaggt 420  
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<210> 8728

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8728

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aatcactgta agaaataagn gactttttaa acaaacacag acacacacac tcctnttaag 180  
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gacattggag cctagacatg tgggaaagg ctcagttcag tacattctac tgcatacact 420  
tgaaatatta cagtngttt ttctccaga ctattataaa taatttttcg ngctttctga 480  
aaaaataaaa actgaacttt tagtctgcga taaaggngac ccttntttta agcaagntac 540  
tacatttgca ggatttgggg gga 563

<210> 8729

<211> 575

<212> DNA

<213> Homo sapiens

<400> 8729

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tgtcaaatac atagtgaata tatctataga tctcctcagc cttctgatga gttacttggt 180
catacatgga gatttcttga agtgagctgt tagccatcct tttcacagat gaaaactggt 240
gacacatatt taatgcagtt atataactta tattgggaat acttaaataa aactggagtg 300
cctcactttt attactattc accactgttg gaacatgaat accaacattc tttctttggt 360
ccactaaaga cagttccttt agcaaactcg cggtttcttc ttggcaggaa ctgaaaagaa 420
ttcggattcc agcgccaatt aaggtagtca gcaggctgtc atagctcttt gtctcctaaa 480
catccttgat gtgtctcctg tttttctctg tccttttccc aatcacacat attctttcaa 540
acttactctg cangtgccgg aactgntcaa tggan 575
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<210> 8730

<211> 579

<212> DNA

<213> Homo sapiens

<400> 8730

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gagaaggcgc tcagcagaaa ggtggaatcc ccaactgaca gccaggctgg ccgaggactg 180
cagggtccca gcagggtgat caagcaccca caagcagaga ctctgggcca taatctgcaa 240
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ccagcccctc agtgatctcc agtgccctcaa gatctccggt gcctcagtgc catcctttag 360
aggccagctg tggttctttc tatacatccc tgctgctgct cctgctgacc tggcaccttc 420
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tcccttgggg atgccaggca caagctgctg atcagctcta catttgattt tctttctttt 480  
 tttttttcta agagatgagg nctcactaca ttgcccaagg tggctctaac tcctaacctc 540  
 aagtgatcct nctggcttgg nctnccaacg ctaggatac 579

<210> 8731

<211> 580

<212> DNA

<213> Homo sapiens

<400> 8731

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 ttcaggtcag ccaaaaaacg tgaagggaag gtggacttta tacaacttag acatttatgt 180  
 agatagcaca gcagactcat gttcaagcca gccacctgaa acattataag tccgtcgagg 240  
 gggacagcaa tctatgggtcc atggactgaa tccagcctac tttgtatgg ctctgagcta 300  
 agaatcgttt taatattttt taaaggttgt taaaagcaaa taacaaagaa tacatgatga 360  
 ctctattctt gttctcatgt gtgaaccata tattatagcc tgcaaagtct aaaatactta 420  
 taaaccggcc ctttacagaa aaagtttgca gacccttctt ttacaccagt gctgtagata 480  
 attctggcag tacaactgca agtctaagat aatgntcatt cattcccatc ataaatgtaa 540  
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<210> 8732

<211> 575

<212> DNA

<213> Homo sapiens

<400> 8732

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gtgttaccaa aaggcttatg agcctaaatc tatectcata ttaatgggca cacttttaggc 180  
 actttttcca agaagtgcaa acctgttcct tggaaaagat aaccactaa tccattagtt 240  
 ttttcgcttt gaaaaagcag agagctgatg gaaaggcctt aattggagaa agcaatccag 300  
 ggctgctggg tggaggctgg agaatcccag gtggaaggct gggcatgagc catacactag 360  
 gtgtctcaac tggtagagtc aatcaagtgg gagaacagac caaaaaaact tgaggacgcc 420  
 ctaaagagat aatctgcctc ctattgcctt cagctgcctt tctgaggatg ttcttaaate 480  
 acctatgtag gttagacca gaaagctta aaggagacaa ctggaggaag anggtatcaa 540  
 taatttanaa gtaggctggg catggtggct cacc 575

<210> 8733

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8733

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 gacaatgaac tgctctgaaa acgtaatatg atatataatt gcagaagcag gtagagtata 180  
 aagatgatga ctagatgggt tctgaagaaa tcaagagaat ggtaagaaag tgagagtgaac 240  
 agctttaagg agatatatac tacatgtgac taaaataagc ttaaatgata ctctctactc 300  
 acagagtgcc ttttgaattt ttaccagaat tcattcatta attttaactt aataagacac 360  
 agcaagagca gtattaggtc taaattacct ttaaaaattt ggctgcagac attaatgat 420  
 tacaaaacac tatgatcacc ttctgaaggt attctacaca tcttaatatg gctactgaca 480  
 tcctagcaaa tgncaaagtg cagataacna gctnacttaa aactaactnt nnaacng 537

<210> 8734

<211> 572

<212> DNA

<213> Homo sapiens



<400> 8734

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 aagtcagcaa aagttgacat ttatcttact agacatttcc cattagccct aactgaaaca 180  
 gatatcaaac accctagatt ctcttcagtg caaagtatct ggagtcacag caattttaga 240  
 gacaagctag tgcaatctag taattttcat agtcgcagaa aactgaggcc tanaagtgat 300  
 ttgtacatgt gagcagctag aaccaggaca agaactccag aacctgggac cacgtgagag 360  
 taaaaagaaa gggcaccgag tacaggaaca acaactgaca catttcaggt ggaaaaaaca 420  
 agtcacataa ctgaaaacca aaatcacagt tacataacta ttttatatta gcttcctaca 480  
 tataaagtat aaaaactcag ctatacatgg tatgaaattg tacaactta cacttggtta 540  
 tgcctaaaat tgnataaggc ccncttatch gn 572

<210> 8735

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8735

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 agaaaacatc actgaaaaag aaggtgtcgg ggaggtacac cctgattctg accagcccag 120  
 cccacacaga gggctctgaaa ggttctcagc cttctccatc acccaccctg cggcctctga 180  
 aaagaggggc ccattctcaga caaaaagca gatactccca accttatggg gaaagctaac 240  
 ggaggaatac tcacagcacc gtggcacggg acggcccttg gcttcagagc cgggctggca 300  
 ccgtttgtaa acattagacc tggatgatgtc tggggatgga ggaggagagg gatgccagc 360  
 ctggaccatc aggtttgatg aaagagacag ggtggggccc ctcaaggcct gggaaatgtc 420  
 tattagctat gggaaagagg ctgacaggtt catggtgggg gttgccagag aaggtgtgga 480  
 caaggtctga atctacctga ctatgtatct gcacgacttc agtgctacct ttggaagtgg 540  
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<210> 8736

<211> 574

<212> DNA

<213> Homo sapiens

<400> 8736

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aaaagacaat ttcttgtaac ttaaaaaataa agtatatatc tagaaaccac cacattaaca 120
tctactatTT atagtacaat ctccaattca aagctaattc ttgtatTTct gtatTTttgca 180
actTTttgagc tagaatcttc ctccctatcc aactatactg ttatgtaacc ccattgTTTT 240
aacatttaac aatacaactt gggTattctc tgacaagcaa gaatatatac tattgatcac 300
ttctatacac aaaataaaaa cagtTcaaat gactagaaac taatTTtaca aaagaaaaaa 360
aaacaggTTa gtaaaacatt tctTTttgaaa acaatgggtg aattagTatt ctgaattgag 420
ctagagcaca tTTttgcttg aagactctcc atattaggca ctatgcattt atatagtcag 480
aacatttgca aaatgctTTt cccggttatt aggactcaca acacctgggc gctgggggaa 540
tagccggact acctcagntt acacagggag aacc 574

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<210> 8737

<211> 573

<212> DNA

<213> Homo sapiens

<400> 8737

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cctggacctt ccaggctcag gagattctcc cacctcagcc tcctgagtag ctggaactac 120
aggcatgtgc caccacacca ggctaatttt tttttagtag ctggggtttc cccatgttgc 180
ccagattgga cttgaattcc tgggttcaag caatctgctg agccaaagtg ttgggattat 240
gggtgtgagc caccacacc agcctTTTT aatttataaa atagagacag ggtcctgctc 300

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tgacccag gctggagtgc agtggcaca tcttggtca ctgcagcctc gacctcttgg 360  
gttcaagcaa tcctcccacc tcagcctccc aagtagctgg gactacaggg gtgtgccact 420  
atgcttggct aatTTTTTTT gncgttggtg cTTTTTTTgt agagatgaag tctgcccag 480  
gctagtctaa gaactcccag gcacaagtga atgctcctgc ctangccttc taaatgttgg 540  
gaataatggc ntgagccant tgggcatct gct 573

<210> 8738

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8738

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acatcatata cgtatattct catattctta gaaacttata acaggtttat tggctttcca 120  
tcttatcaca tgtcatactc cgaaaacatt aaatagaaac aaaagtctcc atgcaatttt 180  
cagatgaaaa acattctgtg cattttcaac ttgtgtgttt tcgttttagat ggttgaaagg 240  
gtttgctaac aactgtttcc caatttaggc tttctggcca tgggagtgc atgtcctgtg 300  
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ttagcaaga gccagcctgc ggatattgga tatacaacca gctgcagctt cctggagatc 420  
ctggtcaggg gacccaacca tatccagtag aagctttact gccattctc atgcatgggn 480  
gatgcagtta tcggcgcttc tggaaagtgg tacaaggcct gactgtcgcc cgatgcccnt 540  
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<210> 8739

<211> 576

<212> DNA

<213> Homo sapiens

<400> 8739

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 agacctctat tttcattctg tgtattaatg tgaataacag atggatattt taatatttaa 180  
 ggcagatggt aaactttcct ataggtcttg tgagacttcg tcttataggc tgaacaccat 240  
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 ttagcaaagc tgcaaagaat gaaatgtggc ctaagatgta attatgttct ctgcccttcc 360  
 tttgggccag ggtagttttg cacttgacac aatggaaaat aggccataaa gcctgaaaat 420  
 aaaatgttct aaaccccaat ctcacagcac tttagtaggc ttttactag gcacttttaa 480  
 agtattttca acaaaatact aattaagcta ccacttcaaa agagcttcaa ggaaaagctc 540  
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<210> 8740

<211> 378

<212> DNA

<213> Homo sapiens

<400> 8740

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 cacagacggc ggccaagctg gaaatgggcc ccggagcaga cccttggttc acctggggac 180  
 gggggggggg tccccctgc agcaagcgcc agccaagagg atgtctcgga tgccanagag 240  
 gcgcatacac agnatanagc atccccctcat gtactgagct ggcttcgggg ctgacccttg 300  
 ccctccccta ccccgncctg caggcccggg ccattgcagt tcanggctcg tgacaccctg 360  
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<210> 8741

<211> 582

<212> DNA

<213> Homo sapiens

<400> 8741

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 gttcaatgcc actcagtata atttcaagtc tgataagcat ctaagtattt ttactccgct 180  
 tctaaaacct gatgaggaat tcaaaataag cacacggcat taaatgacat ttattgttcc 240  
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 agataaactc acttctttcc ccagtgactg gtacagaaaa catgtggtca cacgaaagca 360  
 aagggaaaaa gtcagaaagg aaaactctct gcctatagga tctataggag ttacagatat 420  
 tttcaaatcg atgatgaaaa tagatcgtgc ttctttgtag caaataatta acccccttta 480  
 tgaataaaac ataaaatgtc aaagctttta ctcactggaa gtaagtttgn cttctnggga 540  
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<210> 8742

<211> 572

<212> DNA

<213> Homo sapiens

<400> 8742

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 gatagccaat cagtagacac aatcagagta gtagtattcc taagaaacca ggataaatct 180  
 ccaatgtgca tgagtttaat gaaccagata gattattgta tcgccaatat ccacccttat 240  
 cccattctca gtcagatgaa ttttcttgct catgagggtcc acattgaaaa cagcatgctc 300  
 agaaatgggg gtcttctcgg tgtactcctt tcccaggaca gggactcgtc gaggccccaa 360  
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 tttcattaaa cgcctgatta tggaatcaca gttatctcct tgcctgattt caattttggt 480  
 tgagaagtgg ccattgggat ggctggggat tccngagaa accgncacac caggtctatt 540  
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<210> 8743

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8743

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<210> 8744

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8744

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<210> 8745

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8745

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 agaggaacat tagtgcaaat cctagcgccg gccccgggga acctgcccct cctgggctga 180  
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 ctttacagcc aggccacacc cct 563

<210> 8746

<211> 575

<212> DNA

<213> Homo sapiens

<400> 8746

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aaaatgatag cacatggtat ctgagctgct tacattacaa gaaaaaggaa atacagtagc 180  
tgaaatatgg cactcctggg aatcaacttc taaaccaa ataatgcctt tgaaatgatt 240  
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taaaaaaaaa tacatctatc taagatagat agtgtatttg tactgttaga cttctttaag 360  
tgcagaaggt gggttcaggtt ttgccttttt aattaaataa ctgaccatat gctttataaa 420  
gtttcactca atcacaaaag ccaatttaaa tcaaggaata tgatatcaaa gttgcataat 480  
ttcatttggg actggcagca ggtaaagtc ttaagcttta acattaatgg tcattttagg 540  
caatggaata gttaaaaagt ctcaaattctc atatc 575

<210> 8747

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8747

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ttaagcacat aataaggcac ataataagaa attaagtaaa tacacagtaa ttctgagtaa 180  
gtattagaga ttatagnggt acaaaaaacc cttgagatta attttttctt aaaagaagac 240  
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ttaagactgt aaactttttt tctgaaaaca attataaaaa agtagtttat aagtaggatt 360  
atttttcttt aaaattttcc aagatcatat tacttgacaa ataagtgtca ttttgaaatt 420  
taaaacatga ttttttctta ataaaattat tagttattct gacatcttat taacagatct 480  
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aaaggtaaag acnggctttt ttaangg 567

<210> 8748



<211> 582

<212> DNA

<213> Homo sapiens

<400> 8748

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ctgtccactc caggcacagg accaccttcc caaggtgcag cggcagctgc cagggcctcc  240
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gcgccatcag cccactgtgc aatgggtcct ctggggacgc tcatgtcttc agtctcgtctg  360
gactcctgag cagccagccg cctagctgca cgggtctgcg gtctacgctt cctctctcgc  420
ttgacacggc tcttgtttgc actgtgtaag gtgtctgcct gagctggaag atcaaaacta  480
caccggcctt cccactcccg ggaaggacag gcacactttt cagaccgtgg cttctctctg  540
gtcaagatga aggaaaagcc aattttggcn aaacaggctt tn                        582
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<210> 8749

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8749

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tacagggtgt cgccaccatg cccggctagt ttttgcatth ttagtagaga cagggtttca  180
ccaggttggc caggctggtc ttgaactcct gacctcaagt gatctgcctg cctgggcttc  240
ccaaagtgtt gggattacag gcctgagcca ccaagcctgg ccaccttttg gcttttttga  300
cagaactctt tcaattgtaa gtcagaaaac caacacaaac aggtttaatc aaaataacaa  360
caggaatctg tctcacataa ttgagacatc taaacagtgt tactagatct ttgattctct  420
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tggtgnttc ctttggtgct tcattcttgc tggctttctc taagtagtag gaaaagatgg 480  
caccgggaag tcccatgatt atgtgaccct tacagnitca gatcaaaaca gaaagccttt 540  
ctggaaccct tganaacaan g 561

<210> 8750

<211> 492

<212> DNA

<213> Homo sapiens

<400> 8750

gagacagagt ttcactcttg ttgccaggc tggagtgcag tggcacaatc tcggctcact 60  
gcaacctccg cctcctgggt tcaaccaatt ctctgcccc agcctcctga gtagctggga 120  
ttacaggcat gtgccaccac gccagctaa ttttgtatit ttagtagaga tggggtttct 180  
ccatgtttgt caggctgggt tttactcct gacctcaggt gatccgcctg ccttggcctc 240  
ccaagtgctg ggattacagg cgtgagccac catgcccggc tgcaatcacg tatgagtttt 300  
tctaaaaaaa ccgaaacact ggaaacatgg atgcatctta aagactttat gctaagtga 360  
accagtcaca aaaggacaaa tactgaatga ttccacttac atgagaaata tgagtagnga 420  
agttgatgat ngagacaaaa ngnttggctg ttgctagggg aagggnaggt ggggagttat 480  
tgtnaatggg cn 492

<210> 8751

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8751

gtaaaaaact ggctttatit gtcacttatt caccttatct cagttatgcc attttggcgt 60  
ccacagtac agtcccctgg aagctggggc cagccccac ccaccaccg tgaccatcac 120  
ccacagggcg tgagtgtggg ccttgcaggg ccagccgat ggttacaggc tgcaggcggg 180

actatggggc tcctcctgag gcctgggtgcc ttccagcccc ctgcccacca gcttgggtac 240  
 agctgcctgc ctgccagagg ccaagcattc ccaagcgtgg gctgggggag gccctgcccc 300  
 tctgtagcag cagagcagac agggcagtgg gagaaccatg tgggtaggag ggcatcaggt 360  
 ctcaagagcc tctcccctgc tcaggactgg gtctagacaa ggccacgtgt gatagggtgg 420  
 taagccctgg gccatatgga ggagcctggg gcccatcttg ggtcttgctt gctganttgc 480  
 tgggtggctt taggcaantc cnttttgtcc ttgggcactc tggttcctgn ttagcacttg 540  
 cancaaggct caaaatgtgc cctnt 565

<210> 8752

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8752

gtttgaaaag tatataacag atttctttat tattatttac aatcaagttc tgttggccaa 60  
 cataatgaaa taaataaaaag atgtgccctg gcctgtgaat ttcaactctc cttgacttaa 120  
 gttctctgaa gggcaaattg gaaagcgttg atcaggcagg gaagagaggg caggtggagg 180  
 ccaggacat cggtgggaag gccacctgac tcctctctca ccagctctaa cactcacatc 240  
 cccaaatgtc cagagaacaa gcatggaaga aaaaaataa agtgcaaatt taaaagtgat 300  
 aaaaagggtg tttcgcacac ccaatgaact aaaactttat acgtaggtaa aatagtaaag 360  
 ataaatgttt ttccttggcc ttcatacaca cccctgaaac ggaaagatgg cgctgctgtg 420  
 cttctgagcc taggcttctt gcactaaagc accaagggca tcgcacacag gcttggcaga 480  
 agggccatgg ncagaatcac caccttcaga caagattgtt gaggctcgaa tccttggcac 540  
 ccccaacttc agtngcncac ac 562

<210> 8753

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8753

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ccaggtgtgg atttttat tcaaaaaag acaacaatgt cttccccaca tacaagtatt 60
tacaaaaccc aactgattca cccatctana acctgggttt tttccactt ctcaacatag 120
ttgggaacat ggaaacatta ataccacac aattcccaga gatggaattt atccatcaaa 180
caaacagngc anattaccta aaagtgcact tacctgcaca actcgggtcta agaaccttgt 240
gaaacaaacc tcatggccaa ggtttcatga atctatttgg tttcatacca tgcaaacctg 300
aacaagtgtg ctgctacact aaactgaaaa tcggttctca tttacaatt aaaaaggttc 360
tcaacacttt agcaactata cagaatatga aggtttat tttcaaaagat tacat ttttt 420
taaaccagga tacacagatg cacttaatgt aacagtacct tctgcaaaaa tagggtacat 480
aatactcaga aatgcatgga ccaatcttat tctctaaaaa ttgaccgctt aanacttctt 540
aagngtanac agccttcaaa 560
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<210> 8754

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8754

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gcagaagggt aggtgtttat ttgcactgct tttataccgt ctaccagggt aaaaaaaaaa 60
aacagagact cttttgaagg catagatttt agatatcaac ctcagactgt ggcat tttggg 120
atttccagag catgtcgttg aggcaacttt gtaccagag gcacatggaa tttaccaggc 180
tgtggagatg atgtgctctc gggatgctgc tgccagtagc ctggtgaggt agggaagaca 240
gcagtggacg cacagtcagg gccagtaga cagcccgctt gcctttcgtg tgattgtcca 300
gcagggtggca cctgttcctt cctgccaccc acctataat tgcttcctc ttgagcacct 360
tcagccagag gtgggtggga aggggaagga cgtgcactgg gttctgctat gtgccagcat 420
ctttggtata aggagccatt ccctgccc an ggcangcagc cagtaccac cggggnttgg 480
gaacattgnn ggggctccat tggcccatgc ttntcctgct tntattagta gggaatcgan 540
gg 542
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<210> 8755

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8755

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agaggtgtca tgtttacttt ttatttagga gtacaaactg agacaaaatc atccttccag   60
ttagtgaggt tttgagggat catactaaag agaagacagg aaaacaccag taatggtgaa  120
ggtcttgaga aaaggacagg acccgcagat agcgagagat cagaggaggc cctaatttct  180
ttcctcattt cctttccaaa tatcccaaatt gtgcaatgca tcacctgaga cagaaggcag  240
aaagcatcaa gctctctgtt tatcccaatt caatgacaac cagaacttat tttttttgag  300
atggggtctc gttctgtcgc ccaggctgga gtgcagtggg gcattcatgg ctcatcgcag  360
cctccaactc tcagtctcaa gcaaccctcc tacgtcagtg tcctgagtag ctggaactac  420
aggcatgcac caccacactt ggctcatttt taaaaaattt cttgtagaga caggatcttg  480
ctacattgcc caggcttgag tgccgtggtg cattcacagc tcaccgaagc tcaaactctt  540
gggctcaagc gaaccttctg ctttaagc                                     567
    
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<210> 8756

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8756

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caatgctgaa aggaactttt aatatcttaa cttgacccaa attatattat tatttataaa   60
agttatataa atgcaggctg attgttttta aagagtcaaa aagccaaata taagtaaagc  120
actagaaata aattcagttg taaaaaattg acatcattat tctaaatgtt atgtggaatc  180
acaggaagaa acatcattgc aatcattatt caaagtaata ttaaagataa cataagagat  240
gtttggtctt aaatgtcaat ttgaatgtat agtgtctaca ataatagatc aaagagaaag  300
    
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taagtatatc tgtaataaaa acaagaaaaa atgagttgca aatactgtat tctacaatga 360  
 aagaagaatg cagattaagg ataaaacagt cttaccaact aggccccctt aaggatcatt 420  
 tttcagggtg gctaaaagga gtaacaataa agctctacac atataactaa aatgttgcaa 480  
 ttaatctagt ccagcacttt natnnganag ttctcaaate anagtncaaa tatnt 535

<210> 8757

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8757

gagtttaagt taaacaccca tatgaattta ttaaateccag actgtgttaa agggcggcgg 60  
 tctaggaggg ggagtgtggt agggggacga gggacaagat gatgaacggc cgtgggcatc 120  
 ccgtaggggg gcccggcccc acccccgcc aaccaccccc ctcggaacg ctgcatcagc 180  
 ttcacatga ttcccagtgg tgctgggctg gcagggcgag atggctggaa acacagaggg 240  
 acagagggac agacagcgcc tccacaaaca aaccctggcc tgccccggcc cctacgtcac 300  
 acgctgggcc ctgacctgag gcgggcctcc caccgccccg gcctgatctg tccagggaag 360  
 gggcgacagg gaggggaggc gagggggccg ngacgcaggg gtagtggtcg ccaggacccg 420  
 gancaggtga ggaccatctc gactaatcct ttttcttgct ctctgctgct tttgnagggg 480  
 cttcctgggc ttctgtgcaa actggncct tgggtgggct tngtgggcag gnacctggag 540  
 gcctcctcct tgggtggcngg gg 562

<210> 8758

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8758

aaataaacca aatgcttggt ggagaagttg agcaggggag atgggcagta gaggttgcca 60

agacagggca gggggctctgg atgaggctgt ccgatgcctg ccagccacag tgatggtgca 120  
 tggagggaag gaggagcaga gagagaagat aggcggtggcc tccgggatgc ccattctttt 180  
 tgcagagagc agcggcagtg ggtccagggg tcctggaggg gctggaaggg ggcagctggc 240  
 tggacatcca gaagcttttt cttccctcgg ccacgcctgc ctggcggcct ccagtcctta 300  
 gcctccgctc cctctctctc tccagatgcc cgccccactc cgtgtccata gcagtgcacac 360  
 agccacttcc ccagctccgt gtaattccca agggagcagt gaaccccacc atctcaaagc 420  
 tgaagagctg ctggccacac acatcctcta cggtttctcc ttcttctgaa cgccggcttt 480  
 gctggccctg gaatcttggg aaataaactc aggangngaa aagttgactt ggttcttggg 540  
 ggttttgttt ctggcaggca gg 562

<210> 8759

<211> 636

<212> DNA

<213> Homo sapiens

<400> 8759

ttgagatgca tgctttgcat acttctgcct gctggggagc ctggggactt tccacacctg 60  
 gttgctgact aattgagatg catgctttgc atacttctgc ctgctgggga gcctggggac 120  
 tttccacacc ctaactgaca cacattccac agccaagctt gcaggtggca cttttcgggg 180  
 aaatgtgcgc ggaacccta tttgtttatt tttctaaata cattcaaata tgtatccgct 240  
 catgagacaa taaccctgat aaatgcttca ataatttga aaaaggaaga gtatgagtat 300  
 tcaacatttc cgtgtcgccc ttattccctt ttttgcggca ttttgccttc ctgtttttgc 360  
 tcaccagaa acgctggtga aagtaaaaga tgctgaagat cagttgggtg cacgagtggg 420  
 ttacatcgaa ctggatctca acagcggtaa gatccttgag agttttcgcc ccgaagaacg 480  
 ttttccaatg atgagcactt ttaaaggctt gctatgtggc gcggtatata cctattgacg 540  
 ccgggcaaga gcactcggcg ccgatacact attttaaaat gactgggtga gtctaccagc 600  
 cagaaaacat ntacggtggn atgacgtaga naattt 636

<210> 8760

<211> 610

<212> DNA

<213> Homo sapiens

<400> 8760

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gagacagagt ctcactctnt caccaaggct ggagtgcagt ggtgtgatct cagctcgctg   60
aaacctccac ctctgggct caagtgattc tctgcctca gcctcccaag tagctgggat   120
tacaggcagg tgccaccatg cctggctaata ttttgtttta gtagagatgg ggtttcacca   180
tgttggccag ggtggtctca aactccagt atccacccac ctcagcctcc caaagtgctg   240
agattacagg catgagccac cacgcctggc cccaaactga ctcttgacca aagaatctga   300
tttggcaaac caaatcttag tgcagtgttc gctcctcgtc cccttaccca gaacatgatt   360
cagatcctaa cataaacaca aaaacaggtc agggaaccaa aacactgtgg tcttgctatt   420
atacaaaata ttgagataat gttcacgatt cattctgntt tcagcaattg ngacaatttt   480
gaacttctct cgaacttcga aacacttcat ttcctactaa atcccaaacg tgtaaacang   540
cttcaccagt gggacttggg ttgggttggg ttttttgana aggaatctcg ctntgtaccc   600
agcttgaggg                                     610
    
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<210> 8761

<211> 457

<212> DNA

<213> Homo sapiens

<400> 8761

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gngggctttt ctaattaacc agggatcatt ttcacatcc tcattagact catctaaaaa   60
tgggttgaaa tcgncatcat ctccagaact catgttttta gagctctcat agtcactttc   120
ttcattatca gaggcatcag attcacttcc actgtcgtca gaactgntac cagtaaggcc   180
acctactttt cgtgcttttt tggttctcg agttatttct tcacctttcc gcttctttat   240
tttattttct ttacaaggac tatctcttgg cgaactgttg ttacttggag ctgtcaaadc   300
gattcctagt aaactataaa gttttttcct gtctggagca ggaaaatgtt tttcaatgag   360
    
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tgactgcaac acacctttgg cagttgaaac aaaatcattc aattctcccc cgccctcttc 420  
caaagcttct aangntctag cttntccngn anactgn 457

<210> 8762

<211> 612

<212> DNA

<213> Homo sapiens

<400> 8762

atctttggaa aatttaattt ggaccatatt ttcttctctt ttctgaaaac atcaaatatc 60  
cccatacagt ttgggttcca cagcttaca aggggcagtg ggtttccgc agttacatac 120  
tgtacccaac ttcttataga aagataaaac attttccaac cttgcttttg agtatttcct 180  
aaaaaatgct ttaaagtttc cttacaataa atggcaagta aaacaaagta aggctttttt 240  
tttctccttt tccccttttt atgtactgca tgttcgagga ataaggaagg aagactagtt 300  
ccatcagagt actagtaatc ctagtaccct ggggattact gctggatcct ccaggtata 360  
cccctattat tgaggccctg atgcaccct gcactgagga acctgagaag ggtaagtact 420  
aaacagtctg tcatagccac gtgggactgt cacagcacan gtgggactgg gagtcgccag 480  
ttcttctcgn gctcacagga gtaacaaagg aactaggact aaaccttacc agaggcttcc 540  
acgtggacta cagtccacac gttantttgn gggccttaca atgccctttt tgacceaatg 600  
attactggaa aa 612

<210> 8763

<211> 612

<212> DNA

<213> Homo sapiens

<400> 8763

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aaacatcttt cagtctggat aaatacacia caaaggatca tagctgaaat accagtgacc 120

atcacaatag gaaaggtggt cagcttgtgg aattttcctt ttggtaacct taagaagtca 180  
 ttttagcagt actaaccata cagtatatgt caggcactgt aataaactct ttacaagtgg 240  
 tacttcattt agtccttcacg acactgaggt agatactatt aaatgtcccc attttacaag 300  
 taaaaaaatt gaggttagag aggccacaga aggtacctga ggtttgggaa gtgtagaacc 360  
 aggatttaaa tctggaactc ctaggcaaaa aaaagtgttt taacaatcac aatatacagc 420  
 ttacattag taaaattttg aatttggttt tgnctattgg tcactatgca tgttttaaaa 480  
 tgtgagggtt atagcttatac tggtaggaca aactctttaa cttctaattg atggctancc 540  
 aacatatctt caaaaatact attataatat ncctaatttc aacaccaaac acctntccaa 600  
 aaaactaatt ct 612

<210> 8764

<211> 616

<212> DNA

<213> Homo sapiens

<400> 8764

cagaccagct agatattttt attaatgata tataacctct ttaaaacatg tatatttacc 60  
 aaaagcattc tgatatggcg ttcctctagt gtgacttttt gcatgtaaata taatacagcc 120  
 tttttgacct tccatacagt caggttcctc ttcagtgtgg atgtttccta acgaccaagt 180  
 tcaagggtt tccaacatct ctttcactca tgggacttct caatgtgtgc tttgacatgt 240  
 tcccaaagtg gaagctaaaa acaaagaaga atctccacac attttacatt cataagattt 300  
 ttcacacttg tgagatcaca gctgaatatt aaggtataag gcagagcgaa aggtttcaac 360  
 acattcctta cagccagagg acgtgcattt atatccaatg tgctcacaag ctctagtaagg 420  
 cccgaggaaa ataatgaaag cttttccacc ttcctcacat tcatagcatt tctctccagc 480  
 atgagttcaa acagactcag taagatgtaa gcatcgacag gtttctaccg tcaagttggt 540  
 tcctaggatg cncagacnca tgaatagtan ggctatggaa ggagcccaga tttncacatc 600  
 ctaaatcaag gctcct 616

<210> 8765

<211> 589

<212> DNA

<213> Homo sapiens

<400> 8765

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acagcataac agggtttggt tactgtgcca catcatgggt gtttttaaaa cgaaatataa 60
atatatgggt agggatagca ttttaggag aacaagtgac caaaaactaa gttacctctt 120
ttcaggtcag ccaaaaaacg tgaagggaag gtggacttta tacaacttag acatttatgt 180
agatagcaca gcagactcat gttcaagcca gccacctgaa acattataag tccgtcgagg 240
gggacagcaa tctatgggtcc atggactgaa tccagcctac tttgtatgg ctctgagcta 300
anaatcggtt taatatitit taaaggttgt taaaagcaaa taacaaagaa tacatgatga 360
ctctattctt ggtctcatgt gtgaaccata tattatagcc tgcaaagtct aaaatattta 420
taaaccggcc ctttacagaa aaagtttgca gacccttctt ttacaccagt gctgtagata 480
attctggcag acaactgnaa gctaagataa tggctattca ttncatcat aatgtacatc 540
tnaanagggg cttctgancg actgncnaat tcttttaact tttcttcat 589
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<210> 8766

<211> 614

<212> DNA

<213> Homo sapiens

<400> 8766

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atatcttata ggatttatca caaaatgtta ctgcccagtg catttttgca aacaataaca 60
attcactgag agtaataaca ttcacatatg taattagagt ttaaaaatgt aaaaaactta 120
gggtaacaaa cactttaaac ttatttttta gacattcaat aagcccattc tcccacaaac 180
tgtttgatta caaagaagca caatgggtta actgtggcaa aacataagaa ataaggcagg 240
ggaggcagat acagacttga gaacataagg atatccaaac aattttgtca atatcaaaag 300
acaaaatcaa aacatctttt ataataaaa acaaatccat ataattaaat actaattagg 360
tgaaagatta tagggatatat aacatttatt ttctctacat aaatttgcat atcttaaatt 420
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taatgcaaaa catcatgttt caacttcaac ttaacatcat aacatgtagt tcttggtgag 480  
 tctagatgta atggaatgaa tatttaata gacttcaaag atcctgtcag gttttaattg 540  
 gtattggtgc ttaagnctta atgctttctt tattatggac taagccantt tagaaccaaa 600  
 tcncaccacn ccct 614

<210> 8767

<211> 611

<212> DNA

<213> Homo sapiens

<400> 8767

cttttaaaaa gtgatataat aaacttatat acaggataat tagcaaaatg tagaaaggga 60  
 aaacaatgta caaaagacag ataaaaacca tcactctcga cggatagtca caatccaaaa 120  
 atagtataaa ccttaacaaa ccctctctaa accagggtcat attcacatct cccccaagt 180  
 tttgtcagtg agaataaaat atactgaact agtgagctca gtctttcttt aaaataggct 240  
 tgactttgga acatgaacct tggatagatt tttaaacaatg ggagggacaa acaggaaaac 300  
 cattctatct atccacttaa ttagtactaa ttaacggaac aaagttatta aatagctctc 360  
 agtgctaagt caagccatta ttcagaggcc tttttgtttt tctgctggtt tcggggtgag 420  
 ttctttaaca agcttcttat cctgagggtca ttccagtaga ttctgccata ttctcaaatt 480  
 caaatggcgt gattccagtt gcaaatttgc tcatgtcang tatagggtta tgaattttan 540  
 tgggnccgtg aaggctggtg ctgcagaaaa gactttggtt gcccatgntg atgccangtt 600  
 gggncactg c 611

<210> 8768

<211> 613

<212> DNA

<213> Homo sapiens

<400> 8768

aactttctgc tctatattgt ttgtttaccg ctgtatctcc cacagcttga acagtaccaa 60  
 ggtaccgtag taggtgctca ataatgact attgaataaa tgaacatata caacaaatgt 120  
 tctcaatgta aaggatcaga gatgccacat gttctccttg atgggagaga cccttccaca 180  
 tgggaatgat gggaaggagt tgtactcctg gatgttcagt aactgcttct aggagaaaag 240  
 gtagagtcct atcactaagc cgcagatatt tatttgtgtg tggctagaat gggatgtttt 300  
 gaatcttctg ttacaacctt gggaacgtgg ctgttatttc aatttatgag ccagaaattt 360  
 tcacatcccg aaactgcccga gagttccacc agcctgggta tagtatttgt tataatctag 420  
 tcgtaacagt agttgagcca aatctgagtt gatctgatga ttccgaacac tggagagaat 480  
 cttgaacagg agtgaagact ggcggtctaaa gcccttcacg agaatgctca ctgggccggn 540  
 tncacgctca tccagtggcc taggtctgac tgccagcgaa caaaactgtg cngagactag 600  
 gattcattcn gcg 613

<210> 8769

<211> 618

<212> DNA

<213> Homo sapiens

<400> 8769

ctttaagggt cattaatttt ttttttccct gattacaaaa gcaaaacctc atttttttgg 60  
 tctttgaaga ccatggagta tgacttctaa gagcaaacat taacatcaga tttgtatgtc 120  
 tcactacaaa aagaacccat cactgatgta agacctactc atgatactga agtagatttt 180  
 ttaaattaaa aaataaaagt agtcatttaa aatggaggaa ttgtagatga gtatggaaaa 240  
 atccattcac aaagttcact atttgcattt tctaaaagaa ttttatgtaa taaaatagaa 300  
 aactaatgat ttatagagat gtgcataaac tcaagagagg aatatggaag ggaaaactgt 360  
 gttatattcc catttaaatt taaaaaaaaa agataaaac acttgaaatc tgtgtttcac 420  
 atattagaaa aaaataaatt caaatgattc taattccatt agcttgtaa tgtctccatc 480  
 tctaagatgc tgccaagata gcacacaact ttctcttgaa tatgcaccta acttcagggt 540  
 aaaaagaccc cagtcctcac tcgggaccga acacgttncc agagaaatca gaaggaatta 600  
 tgnaaancnt ancccntc 618

<210> 8770

<211> 614

<212> DNA

<213> Homo sapiens

<400> 8770

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gtcatgaaaa aatttgatgt tgtttattgc aaatacaatt taaacaagtt ttttttagtg   60
tttgtacaca atttgtcaat ttttcaatat tcaattttct gtacaggtac ttttgggaca  120
attccttatag ttacataatg tgaattcatc aaaatgcagt taagaaactt acaggaatat  180
atacacttga acccaagacc caaacctgac attatataca acctatttac aaatacatat  240
ggacagacaa tatatgtaca tagattatca taaatattga aaaataggtt agctttaatg  300
gattaatggtt gttctataaa taacattaca gttgtaactg aaacatccac ggaagacagt  360
aatgcaaaat gaggtgacaa gacagtgggt ttaatactga agactgctca ttaatgggaa  420
ttcattgttc aggaacctca aggtagacaa gatagctccc agaaaatcat ccattggaat  480
ttcccttagg cacttgattt tgaaccttaa atagccngag gattggagga gcttcctcac  540
ttaattgctg tagagaaaag aaatTTTTTT ccattcttct tggtggcaca gtatntntnt  600
ccatcaaaaa aaaa                                     614
    
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<210> 8771

<211> 584

<212> DNA

<213> Homo sapiens

<400> 8771

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gncctctttc tcaggaagag acagtaatga tttgtatata cggacaccaa aatctctttg   60
aagcatttcg ttgaaaagtt ccgcaaaca tgaaacctca aatgaatgtt ctttattatc  120
ctctaattctg tagtccaata ggacactcaa agacatgatg ctacaatcaa acttgccact  180
ttttgcagcc caatttggat gtacaatgat ggccggttca tcaggcaaaa tatatcttct  240
    
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tctcgcagc tggcggttcta tttcctcttg acgtttcctt tcttcttctt ctttatcgtc 300  
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 taatcctttg gaactaagag ctcgactttc taattctttt cggaggtcat ttaccttcat 480  
 tggctttgga caagtttaga ccaatgggta ggtgtagaaa ttttttagct tcaccatcat 540  
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<210> 8772

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8772

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 cctgctctag aaggccaggc cctcagattc cacatggttg gagttctggc caagtctgga 420  
 gctttcttca cacttngntt ttaaaactnt gggttcaaaa aaaactgnnc ntggtgagan 480  
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<210> 8773

<211> 589

<212> DNA

<213> Homo sapiens

<400> 8773

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 ttgatgctga cttagagaa atagaagcct ntatataagg caagagtcca taccagaaga 180  
 attcgaccaa tatgagatac ctccaaaaaa atcaactcaa taacctactt tatatgtaag 240  
 agacccaaaa aagtcagctt ttgtgggaag ttgatatgca gtttattgaa caaacagagt 300  
 gtacagtaac taaacgaact gtgtatttcc aaaggaatta agaccgcata tctggattca 360  
 cacctaaaag cacatagaaa attaaaccaa agaagggcaa gttttgacta aaatcacttg 420  
 ggcccangtt attctataag aagattctca ctggcatttg atagtaactt atcacctttt 480  
 gngcgagctt gggaccagct gctcaggaac tggttctgct tanngcgga tgcccaatgg 540  
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<210> 8774

<211> 613

<212> DNA

<213> Homo sapiens

<400> 8774

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 aatgctccca agtagaaatg acaggactca aaatcccttt ctaaagccca acagctaact 180  
 ttttctgact aatctctagc ttcatgaaa ctggctacca agattgcatt tcaggctaac 240  
 aattggcttc ttagttaagg catcacaact gaaaatgggt atttcaacaa tggatgctgt 300  
 ggatgaagga ataccaacaa acttctaaga actctcatca aaaactaaag caatttgctt 360  
 tgccccagtg gcaggcagaa ggaatttagc ccattatctc acaaactagg aaaggatttt 420  
 tgaattctga actagcagtc tgcacttgtc acagtaacta tatgtataag ctggatcatt 480  
 ttgatattca gngacttttt gnagtttaga atatatatct gnagcatact ttaatcatcc 540  
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<210> 8775

<211> 444

<212> DNA

<213> Homo sapiens

<400> 8775

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ggggccactc aggaacaagg ggagacagat gccaggcatg tatgcaacag agaaaatcca 120
gctgcacaga aaccctgtgg gagagcagct cagtccagcc tgaaggcgtc tttgggaacc 180
ccacctagag gctgtaccct tttctcggcc tgtggccagt caccactta gaggcctactg 240
ccatgaaggc agccctgact ctccatgcct gctgccacag ggagatccat ggagcacct 300
ggggcagaca gaaagcccct aggggggcct caggggaccc ctggctctct cagggtccca 360
ttcaagtttc tgggctagtc ccagcactaa gctgggtgct ggccangtg gataggancc 420
ccatcctnan ncctgnctg accn 444
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<210> 8776

<211> 547

<212> DNA

<213> Homo sapiens

<400> 8776

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gcacataaag caaatcatg atgtgaaaga ggcaaagac aatagttaa gtatgtctta 180
ttttgtaata ggattttttt aataaaaaat tattgtggaa caaggtagat taaatttggc 240
ttgcaattag gaaatatggg agccggactt gaagagcgtg tgattgagtc cccacatcta 300
actgatgagg aaacaggctc agatgggtct attgatgggt ccacttgcta gaagcaaac 360
tggaactaga aaccacgcc tggcttctag gcagcaagca atagttttgc taattttgtt 420
ccccagcatc aaaacaaatg cncaaaatgg gaaaagacaa atgggtattt agttgggtat 480
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tgaaggg 547

<210> 8777

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8777

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cagaggagaa aacaacttcc agaagctgcc cttcaaagg cctgaggtga ggacctgggg 180  
cagcaggcag cttggcatgc aggggttaac cagaaaggcc gggctctggag ggctgggcac 240  
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gactctggaa caatctaaca ggccaagtgt ctcccagggt gggttaggga ggaggctgaa 360  
cacaggctca gatccctgga agtggcagg agagaactga gagaaacttc accctctgct 420  
cggaggacat cccagccta ngtccttgct tctcaaactc taaagtgctt ataggaatca 480  
acttgggggt ctttgctnaa atgcagggtc tgagtcggga ngtatanggt ganggctaaa 540  
ctttgn 546

<210> 8778

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8778

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gctcaagagt taaagccagg aagtggggca gactggggag aggaggcttg tgttgctccc 120  
tctagtgttg gttcactgct gtgcagcaca cagcagtatc tgggtcaatg aggacatggt 180

cctagccttt ctttctccac caggaccctg acttatctgg ctggcccagc atggaggaga 240  
 aggaaagcgg gccgtgctgc cgggggggatt cctggatccc tctgcatgct gacagacagc 300  
 tgtccacagt gggtagccaa ggtgactggc attttgatcc cagctgaatg aagactggat 360  
 ttgaatgcag tgccagggt gttctgtaga caagagcgaa cagtaccctg ttcgctccct 420  
 tctgcagtac cctgaggaag gagagaggca cccaaggcac gaatgcagac aacagangga 480  
 ctggncangc tatcccggtt tncanctgtt tgtgccacaa gccaccactc catactttat 540  
 gtc 543

<210> 8779

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8779

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 gagtaattaa gaccattcag ccaagattta catttgctgc cacctttaat agcactgatg 180  
 aaaagtagaa cttttttttt tgacttcttt ttcactgtgc ctctaataca gaaatttttg 240  
 ttaaaatatt aagggttttt aatgttttaa gaatgagaca taaaaaagtt gcagaaaata 300  
 aatgataaat tcttatttat tgaaagacat tcagttgagg aataggata taactgtttg 360  
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 ttctgataat tccggagcat tatactcatg cagcagtggg aggaaagtac tgatgttttt 480  
 ttaaaaaatg gtccattctt ggccagccnc atgggttacg cctgtaattc cagcactttg 540  
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<210> 8780

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8780

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ccctaccgnt tntgtgcaaa ccaaggccaa cagctcctgc tgcctcttcc tccctggaaa 180
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tggggaggac acatgtaagt gctagaatca aacactgaag cgaaacaggc aactggcaca 300
agcagcaagc tgaggcatgg gacggggcan gaaaaggga gggaggggcc acgtgcccc 360
tctgggcttg ctgagctaag gctctgggggt cttgccctac gctggcaggg aaacaggccc 420
cagagcctca cccaataacc cgggagctag ggacatgggt ggcaactgta aanaaagggt 480
ggaaggggaa aaaggantna aggcctant ggccctgtna cttaaagccc n 531
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<210> 8781

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8781

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gtcagtattg ctctttgaga aagtttattg gcaccaggaa ggggtgttggg agctggcaag 180
ctacaactgg tgagcaaccg ggcaggcaaa attattccta gagcttcagc aagttctctc 240
agcagttatg gacaaagctg gtcccagctt acagcacgca gtttcaccag ctggatgtgc 300
agagaattac attactagat taatgttatg tgcctgaggt gcttttatcc ctggcttctt 360
gacttttgat tgggtgtgat aagaatgact taatttggtg taatccactt tcacagcact 420
gacatactta agtatggact ganggttgct gaattaaccg gtgtgtaccc gancccaaga 480
aggcttaatg aantaggaat tactgnttaa gcctaagacc ttattataaaa ttttgtcc 538
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<210> 8782

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8782

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aaaaaaaaagg ttggaaaaat tactttatga agccttaagc actaagaata attaattaaa 60
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aggtaagacc atgaaatttc ctaacgcttg attttaatac attgcgctaa ttttctaaaa 180
caactcagag gaacccatat ttacagtagg cagaatattt atgaaaaaaa tctggcatca 240
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tgttgtgtgta tcccagagatt atatgaacta agaaacaagt tgtgtatctt aacagcagta 360
ctagagcgca gagtttcaga ctgggattta taaatgcttt caacgtgtgg tgtttgaaa 420
aggagaagac atcatctgat tttcaaaacc tggaagtttt tctcangact ggaagtcaaa 480
atcgnactgc ccntanggg aaaagggaac cttttccta atggatcatc nc 532

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<210> 8783

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8783

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aataatatga atttaaaata gccacaaaca gggtagagtc atgtaagcgg ctgaactgcc 60
agtacagggg aaggtaaatg ggcctaaact atgataccta gcaagggttg gatctgtgca 120
ggcttctatg tacagagaca agcagggtta ggcacttaaa gctttttgat gaaaatcctg 180
ggaaagagct gaggctacat ttattattat tactatcaaa acaacaacat acttttcatg 240
aagaaacatg caatcagaaa cattacagag actgaagaga gcttaagagt tttctgaaaa 300
tgaaatgaca tgtttttcca gagtatcatc tcaattataa aatttgatgg ttttatatta 360
tcatatttct tcagtggtaa ataccicatt aaaaaattat taaaaaatta ttgacaatac 420
aaagccctag ttagtataca aatattacta tactgggtccc atcttgtaag ggaaatatcc 480

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catctagata tctaaatata ttctatcatc caatatctta aanccaattt cttaaattg 539

<210> 8784

<211> 479

<212> DNA

<213> Homo sapiens

<400> 8784

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aaaggataag catcagaaag gagcagtata gaaaagagat taaatatgca ctcttcata 180  
caaattaggc atttagtaca ggttctggca tatgggccag ttctaattcc tgatgaggca 240  
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ttgagacttc agctgttcta tttcttcttt cttttattgc caaatactga aaggagacta 360  
agcaaggaag ctggatatga aatgtctacc ttcttgactt acggttcacg ttgtggtcct 420  
tcctatttcc accttaaaat tgacagggcc tngctnaaat ttngctncc aangatncc 479

<210> 8785

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8785

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tacttccttc actttaagcc aatcatgaaa ttccagtgat ttctgggggtg agggcgaaag 180  
gtggtgttac gaatcatcgg ggctgtggcc cagttgcctc acggaggtgc aggtaggctg 240  
gggcctcact agggcagctg gaggagcacg gactgccctg ccggcaggca ggtgatgttc 300  
cgagagcatg agagctggta tgcaatgtct tctgcagctt ccagcttgca cagctcgtc 360

tggccgtccc ctgcagtggc cagtgagttg gcgatcagct cagctgcctt ggagtcaccc 420  
 tcagcagaga tgatggccgc cttttccacc acaaactctg cgctctctgc ttcctggggg 480  
 gccacctgtc tggtaactnc tttcaagaan gncanatgtg tcaaaaacac gttgtccana 540  
 atgagcccca aaggg 555

<210> 8786

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8786

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 aacatgttct tatatttaac atgtttgata ttttcttcta gaatatcata gcaaataaat 180  
 attcaacata caccaaaagt acttaaaaga agctccttct ctttggacat caacttttaa 240  
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 ttggaattta ctaattactg gggatacttt agtgagtctg catatgtgta ttattaatac 360  
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 gactgtattc aaagtctgag ggaatgacaa aacgggatgc acatctaaca ctgatcccng 480  
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 ttt 543

<210> 8787

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8787

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 aacatattga tgatagtcca naggcaattc ctctctcact ctttcttctc tcataaaaga 360  
 tgcaggttgc tgatttttga tgtcatcctg gtcctgggat ttgggaggca aacactgata 420  
 gtctgccaga gaaaagcttc tctccctttc tcatctgnca tatcagagta tggctcctta 480  
 aagnnactt tctganattt tggtagaaaa tcttgggcct gacatttggg an 532

<210> 8788

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8788

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 cccagctgta atgagttaca aggtgttatt atctcacaca cacacaggag gcttcactct 180  
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 gtcctcangt gctcagacca aggtggctct gcagcaccgt gcttcagaag ttgggaangg 480  
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<210> 8789

<211> 536

<212> DNA



<213> Homo sapiens

<400> 8789

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<210> 8790

<211> 475

<212> DNA

<213> Homo sapiens

<400> 8790

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aaagaatagt actattttga aacagccaat atagtatctg aaaatattcc attttatcca 180
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ttggacttag gtgaattcta aatctttact tcactttcaa actacagggc atngacntaa 420
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<210> 8791

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8791

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gcacgcgtca atatcacgcg taggaaaaac tagaaaattg ttccttttcc atttgcccc 480
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cn 542
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<210> 8792

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8792

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ctcttcactg ggttgtttct taaaaaaaat tcacgcaact gacaggagga attgtcttta 180
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cagaccacia ggaaaaagaa attgctgggt ttcactcaag atttatctag aaaagtgtac 300
tgactactgg aataatagtt taccctggg ttgtaccaca gaatgagaaa ttctacaaga 360
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ttagaaatta acttttctaaa tatcgnntttt tttctccaaa aaaatccttt taccagctaa 480  
cctgggatat ggccaaaaat atcttgatnc tggnaaaggg ctatctccct agtaaaaaat 540  
ggaataaatt gn 552

<210> 8793

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8793

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gatacacgct gaaccattta cagacacact aaaaatgttt taaaatatct tctttctcca 180  
aagagtccat tgcgcatttc ttagagtaga gatggggaca cattccaggc aaggtcacia 240  
tggcattttg ttgccctcaa tgctgatttt cactgcgtgt gcagatctgc tttttttcct 300  
tatatctgtg aactttctca tctgtttatc cagtcgactg atacccttct tggagggtgc 360  
ctgaaacctg gatgactcca ttccacatt ccatttgggc ctgacaacat agtccttggt 420  
tgaaggcatt gggacccttg cacgggcaca gaatccaagg atctccangt cttaaaaccc 480  
ttcttccttt cttgtaacac cttttttcaa gggctnttct ggggggtctg accccccann 540  
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<210> 8794

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8794

gcaaaacaat cagaaaacat ttattatact gaaatgtgta catcctacta ttaaaaaaac 60  
aaagtaacaa atttgctggt gccaaaattt atttagcctg tttcactggg acaaactcac 120

gttcaatgcc actcagtata atttcaagtc tgataagcat ctaagtattt ttaccccgc 180  
tctaaaacct gatgaggaat tcaaaataag cacacagcat taaatgacat ttattgttcc 240  
ataaatcttg agacccaaaa aggaatgcta aatagacaag caaaactttt aaaacaaacg 300  
agataaactc acttctttcc ccagtgactg gtacagaaaa catgtggtca cacgaaagca 360  
aagggaaaaa gtcagaaagg aaaactctct gcctatagga tctataggag ttacagatat 420  
tttcaaactg atgatgaaaa tagatcgtgc ttctttgtag caaataatta acccccttta 480  
tgaataaaac ataaaatgtc aaaagctttt actcactgna gtagttggct ttttgggaga 540  
agatttcaac tcc 553

<210> 8795

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8795

aattttgttc atttttatta acataggaca tactaaccaa atattatcat ttaataaaat 60  
caacgttaca aagaaactca ctagcaaata aacaaacgat attcacttga ctcttctctt 120  
ggttgaatga ttttctatta attagtagta cacagctatt tttatcaatt tatgcttaaa 180  
ctgccttatg atttcaatga aatttcttag cttttacttg ttgaataatt ttttcaattg 240  
ggaatctttt cataattcaa aatagttcct gaaaattaat gcaccttca atgtcttcta 300  
cttaagctgg gtgcatttaa aatgcaacac aattctttga aaggagacta tgacatttga 360  
gcataaagcc tataagaaaa agaaatgtct tccctccccc catgcttcac agagactata 420  
tgaatgttcc atactcttca tatttagcaa caggagttcc ttagagatca aacagcagaa 480  
aacaggagga acttangcca tcaatggact tgtaaaacag ataaactccn aatgnatttt 540  
aagattccat cttcttcaca gatgaa 566

<210> 8796

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8796

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ggggggtgca nagctgtgtc tggaaccacg gntagagcca cgggccgaac tgngcacaga   60
tgccttcctc ttcggntca tacttcgact ttggtcttct tcttcctcgt aacgactttc  120
tcgggccgt tttcgggctt ctctctccag ttcatcccaa tcctttccac tctcttcttc  180
actaccaat gactccttan aatagtctga ctcttctgct tctgatgaat aatcttcac  240
actggcctcc tcttctctt catagtcac ttctgaagga ttaaaagtct catcttcaat  300
ttcagactct gaatccccctt cttcagcatc actccccna ccctnaggct ccaggaaaga  360
ccagccacct tgntcgaaga anccctnagg gtcacaaaca atggncctca tgattttagt  420
ccagttgagg gactgnactc ctctcgggna ttccaggtcg caggaattca accattcctt  480
gatggggcaa ganaagcttc nggaatggcg gttgacatgg cactttcttg ntggagnccc  540
tgggg                                           545

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<210> 8797

<211> 481

<212> DNA

<213> Homo sapiens

<400> 8797

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cactacagac agaatatctt attttattgt gtcgcataat cctttcctaa aaaaaaaca   60
ctgcttctcc ccagttacaa gagactaaaa gcatactaaa aacactttat cgtcattact  120
aaatgcatta aatacacatc ctaaatggaa tatgctgtat atccgatgaa atacatagaa  180
cgttcatcaa ggcaaaagaa aagacgtagc caacaatgga aagatggcac acacaagaaa  240
aaaaaagaac agttctcaaa tattgcagta acttttcaat gtatcataga tattctatga  300
cttttctatg aaacagagga ggaccaaaaca ttatacacag ttgaagaga ctaaatgcc  360
gagaatctac agatatttagc atccaggaat aatttttatt cctggcccat tttctgccc  420
ctggaaaaaa ttgcattgtt tttccttccn aagaggncnc ncaaaaaant tntttccatn  480
g                                           481

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<210> 8798

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8798

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gaggttcana aatgcatata ttttttactt acaaattattc atctgaccaa aaitcaacat   60
aacctttatg gaacacttaa caattgtttt gtttttaaaa taacatttca ttcaaactgt  120
atataattca gtaaagtttt ttatacagca agcaatgctt aaaccctgga aaatntgtan  180
aaaagagatt ttcacacaaa ataagaaaag aaaaatctga ggtatccctc acacacacac  240
atccattcat tctggcccat gtacgtgcac atacacacgc atgcctgtgt gttcacacag  300
acatattcat tctcactcac aaagnggctg cagcataggc aaaaattgta ggtccaaagg  360
aaaatgattg attgttctaa taaagagtcc gagtagctca gaaaaaaaaa ccaaaacaaa  420
acacaagagt cttctgagga aattactacc tcaaaaaaat gttctcaaga tgaatttgag  480
atctaagcct actaaactgc ttttgcaaaa cagcttcctg cagtccaagg ngacttgggc  540
aaatagaaag gaat                                                    554

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<210> 8799

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8799

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atgaacttct tttattcaaa tatattttca cacatcttat ctaaatacat aacacagaag   60
cctgtgtgac ttgggcaacg tgggccagga gggcctgaga ctaacacatc cacctcggca  120
aaaggacatc aaatatctct tacagtcgga acaaacagcc ttttgtgtat ttccttagtt  180
tacgaaatat actcgaaatg ctattattag ctgaatttgt ggtttccttt tgagtttctg  240
agttattctt atttattttt cccattttgt ttttgacca aggagaccgg agtcaaataa  300

```

tactcagcga ctgatttcct ctctttggac tgaaaaatta aacagatact aaatgatgac 360  
 agtgaattta gagagggctc caagggcttg aaagaacatg tctgggataa tatggtgctt 420  
 ctaagagtat tgcaatcaca tcgtggcaat caccggcgcg tgccgctga ctacctcctc 480  
 ggctaatatg ctttcttctc ggcatgact aatcacgttc tattaaacag cagtaatgcg 540  
 ggaagaactc ggctgtncaa gtgtaaagg 569

<210> 8800

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8800

agcaaaacaa aactgtttta tttatcaaag acaatgaaaa aattagaaaa tacagaagag 60  
 gttataaagc ataataaatt ttatTTTTTg gaaatggaaa aatgtccctg aatagttaga 120  
 tgtacctttt agtagtaatg tctaataata aataagaaat caattttata aggtccatat 180  
 agctgtatta aataattttt aagtttaaaa gataaaatac catcatttta aatgttggtg 240  
 ttcaaaacca aagatataac cgaaaggaaa aacagatgag acataaaatg atttgcaaga 300  
 tgggaaatat agtagtttat gaatgtaaat taaattccag ttataatagt ggctacacac 360  
 tctcactaca cacacagacc ccacagtcct atatgccaca aacacatttc cataacttga 420  
 aaatgagtat ttgcataatc cagttcagga tatgtttttt acaagttaat cctaaagtct 480  
 taagccagga agcttttctt agtncaggat tttattggct aagctttaca aattaaccct 540  
 taaaaaattn ttccanggtc n 561

<210> 8801

<211> 376

<212> DNA

<213> Homo sapiens

<400> 8801

caataaatac atgctgattt attacaggga taagatggtt tcttggggga tagattcaag 60  
 aggagtgan aatgttttat tcatttacia tgncccttct ctggaagggt ggacagcaag 120  
 atttaggaca agctaaaatc atcccctatt taaaaaaaaa aaaaaaaaaa agtcaccagc 180  
 aagtantccc gggngggagg tgggagcana ataaaaaaaa atctgcantg attcctaatt 240  
 gtttttcaat acanaancctt gggaaggggt ttctgccagt ttcattgagga aggcccaact 300  
 tccaggtagn gttggggang ggtatgaggn cctatgcagg ctggcctctt atcccacaga 360  
 tgccaanatg atgnnn 376

<210> 8802

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8802

catgtcatac taaatatatta ttttctgcag actgacttcg gagtaattct tgagccagga 60  
 ggggagaggt tagtgttcaa attgctgaga tcttaggtca aaaagctaca gaaaagaaat 120  
 cactttgaaa aacacaatga ctcanaggca gtcacccctt gccagcaatt ccaagagctg 180  
 aggaggcttc atgcctcagg acatggtgac tagttgagtg aaccagagat tgaggcagtg 240  
 gtttttacag gggaagaaac aagccttggg tgtatgggag caggaaagga ggggtgacaga 300  
 ctggagaaat gataaaggcc attttgaag cccacaggga agtggctctg ggaaacctga 360  
 agacactggg atattcagaa ggccaagggg atccagctta tcctgttggg caaggtgctg 420  
 ggagtgaagg caggtaagcc atgtcaaggg cctgggaagc aaggggaaaa ctggaagggg 480  
 taccacaggt gaagaagggt atggaatggg gtgcanaagt ccatggagat gaccggcaga 540  
 tctcaggccg gtttttggca catnaaa 567

<210> 8803

<211> 558

<212> DNA

<213> Homo sapiens



<400> 8803

at t t t t c c a g	a a t g c c t t t a	t t t t c a g t a t	c a t a g a a t t t	a a t a c a g a g	t c a a a a g a t g	60
a t t t a t a a a a	t a t a a a a c a t	t t t c t g c t t g	g c c g t a t t t g	a a g a c a a g c t	g a a t a c a t a t	120
c t a t g t t c t g	a a t a a g t c c a	c t a t g g a t a t	a t a t a g g a a g	a g a t a t a c a t	a t a t c c a t c c	180
a c a g a t a c a c	a c a c a c a t a t	a t a t t t c t g c	a t g t a t a t a t	a c a t a a t t c t	t t c t a t a g t t	240
a c a g g a a a t a	c t t c t t c t a t	a a t t c t g a t t	t t g a c t c c c a	t c c t c c a c c a	t t t a c t c a t c	300
c a c t c a t t a c	c t a a a t c t t g	g c t t t c t t t c	c t a t a t t g t a	a a t a a t c c a t	c c a a a c t t c t	360
a g c c a g t a c t	g t c a g g a g g g	t t c t t g c t c g	a g t g a g c t g t	t a a t a c t a t t	t t c c a c t g a c	420
a a c t t c t g c a	c a t c g a g g g a	c a c a g t g t a t	c t g a a g a c t c	c g c t g n a t a c	t t c c a c a a c n	480
g g g g g c a t t t	t c n t t t g t a g	t c g g c a t g g a	c a a t a c t t a t	a g g a a g a a c t	n t t a c g a a t t	540
c n c c c c t t t a	a g t g g g g n					558

<210> 8804

<211> 503

<212> DNA

<213> Homo sapiens

<400> 8804

g n g t g t g t g t	g t g t t t t g n t	t t t g n t c t g t	t t t t a a t a a c	a a c a g t a g g a	c c c a a a c t a a	60
a a a g t c g g t t	c a t n t t c a a a	c c a a c a a g a g	c a c t a g a g g a	c t t g n g a c t c	a g t a c c t t c a	120
t a t a a c a c c a	c a t a a a t a a c	t t t a g c c a c a	g t c a a t g t t c	a c a g c c t g g t	c a g t g g a a c a	180
a a g g a a a t a c	t t t t c t g g c g	a t t a g a c g t c	a t n t g c a g a g	a g a g c t g g g a	t a t t c a t c c n	240
a g g c c g g g t g	a a a a a t g c c a	t c t t c t c c c t	g a a a g a c t g a	a c t t n t g g g g	g t t c c t t a c a	300
g c t n t g g c c t	n g g a g c c t g t	g c a c a t c c t t	g g c a g c t g c c	c t c a t c a t c t	t g n c t g t c t g	360
a a g c t c a c c c	t t g t g c t c c g	c t c g g n c c a t	c c g c t t c t c c	a g c a t n c t n a	g c a g c a g g c g	420
g a a a c g c t c g	t c c t a c g c a a	c c a c t g t g g c	a a g c t t c t t n	t c c c g n g g c t	c t t g g c t t g n	480
t c c a n c t g g t	n c t t g a g c t t	c t t				503

<210> 8805

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8805

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ccttgcaact aatggaatgc tctacaaagt tgagggtcag agggggaaca attatataga 60
aatttcggag atgtatatc tttggccttc gaaattctgg agcaaaaacg tctacaagca 120
ttttgaaata ttctgtgcct tcggcagaat ttcgtgtgtg atcactgagg actgaatcca 180
aatgccttgc tgcttttaat gtttcttctg caagaccttc ttcttttact agttcttcaa 240
aatttacaat atcttcaaga tcaggaacaa atctaattggc attgctgcta caatgaagac 300
caccagatct tatcattcgt acatagccca tagcattacc aatctggctg atgagttgcc 360
tgaattgatc aaggtagctc tgcacctcag gtgttattcc aagttttctg atgcctcgat 420
tgaatttttc tgctctatca aaaggatact tatgatcatt tnggccttaa tttccctgaa 480
aaatcgaata tctttaatca atctggattt gatgggtcat catacataaa ttggctaaat 540
ntntagaact tctttttcaa aa 562
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<210> 8806

<211> 523

<212> DNA

<213> Homo sapiens

<400> 8806

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ggggaagcac aagctttatt ggctgaaagt tcttctcagg agcctggtct gctgggactg 60
catgttcctg gatgggctcc cccaggccta agctccagggt ttcctctggc cttccgaagg 120
attttgnngg ttacnaccaa ctgatcaaag atgacttttt cctggcgctt gctcanctgc 180
aaaagcttca tggngttttg caacctcttt tcttgnntcaa acaatttttt atgtagtttg 240
gngacctctg ccttcatttc tccaatctgc tcacagtga gggggcactg gccatcctcg 300
gggagtgaga ctntccanan aagcttcanc cncctgtagg cctnttccag ggtcancttg 360
```

gccgtgctca cactgctcac aaacttgctc agtgggtgctg ggtgtggacc ctttgttccc 420  
agctcttgac ttgtggagct gggagcctct tgggtttgaa tgccatttca gcaaggacct 480  
ttgccctggc tgaactgttt ancanggnct ataagccna aan 523

<210> 8807

<211> 559

<212> DNA

<213> Homo sapiens

<400> 8807

acaaaaagaa atctttattc ttcagcaggt agacaacatc tgccagccct ggtcctcagg 60  
gccacactca tatgcactca cccctcagca gcatatcgcc ccttttctga catataaatg 120  
caagagaccc aggaccctag atctttcttc aaacgcaagt gtctcacaca cacttatttt 180  
acaaatccac tagaaatatg gactcttatg ttctttgtac agccatgcaa cagaggccta 240  
gcatttgtgc tgtgtctgtg ggaaaggcag tcagagacca gtggtttccc tgctttgggg 300  
aagatggctc aacagttagt aatcccaggt tagattgtca gaacagtcta ggccaggact 360  
gagggtctag ctgccagggc tccccaacag aaaccactcc cctctggctg acactgcttc 420  
cttgcgaccc agtctcttct tgnatccag gggtttggct aaggcccgaa tcacctgtgg 480  
tttgtaacgc agcagcacan ggggtgggcag gcgaatgana acatgcatgc actgcaatgc 540  
nggngaancg ggacaagcc 559

<210> 8808

<211> 401

<212> DNA

<213> Homo sapiens

<400> 8808

gtctttttaa aacatcgtaa cattaacaca tggcctgtca ccgtcccca gcgatgggag 60  
ctggcctggg gccagggtc ctccaggatc ttactcatt cacagtaacg gttctgacca 120

gtcctccagg tgcacgtgg atgcgacagg ggtggggagg gaggaggaag tgactgtccc 180  
 acctntgcag gaccatggga gtgggcaagg tgttctccgg ggcgaccccc tgaacccagg 240  
 ggtgctgcag gacttgggcg gcactcagcc tctgcttggc gtcacggacc ancagcttgg 300  
 agatgaggtc tttggcancn caggagatgt gggcccagtc cttgnngggg aactcgnact 360  
 tgccctcctg gatgctctta aacagcatgt tctggcnngc a 401

<210> 8809

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8809

cccaaatcat tatattcttt tatttataga ctctgagagc aaggacccaa gcacagcctg 60  
 gtgctcttgg atagagaaga aagcagctat tgtccacact cagaggttgc tgaggtgccc 120  
 tccccactg atctggaatg atctacactg ctagtgaaga ggagggatgg caagctgact 180  
 aaataagaag gcagggaaag aaagtccgct ttagttctga gggctgtgac attagatgag 240  
 agtggagccc tgggcatgtc agccagcctt ctgtgtaacg cccgcccagg tcccattgtg 300  
 tctgttctct cggctcctcca ctgttgccca catcttctc caggctgctt aagtgccctt 360  
 cctggagtgc atgagtaggt cgcgttgagc cccagcctcc aggctggagg tcagtctggc 420  
 tgtgggaggg tcggtcggca gagtcaattt gttgaaaaca cctctgcaa agtagtcagc 480  
 aatcacagaa aactgcattg gagcacctga gctgatgctg gaattgatca tggaaactcg 540  
 ttctggttcc tggg 554

<210> 8810

<211> 580

<212> DNA

<213> Homo sapiens

<400> 8810

gcagatcata gtgctttatt aacaaattca tgtgttcttt tcccatccct ttaatacaaa 60  
 aaaattattc atcagttatt ttcacttgac atttactaa gtacagaatg cataatgtca 120  
 acattattag atcagccatt caagtgggtc acataagttt atcctcattg tgccaaattc 180  
 ccactcaaag gataagctga ataacagatg cctccagggtg tatacaacaa ccttagtttc 240  
 ttgacttgaa ctagtcctgt ttaacagggtc aaactgctag tctttctaag taaactaaaa 300  
 aagactcaag tacacagctg tacatacata tcatcagatg gtaagttcat ttcaacaaga 360  
 acctctataa ctaactgtac atttgtacag ttttctgcta tcattgcaaa agccccctctg 420  
 aacaaactta tagtttagaa tttaaaacaa tcctgatgag acaaaacgta ccagggtggct 480  
 tttctgnagc agaaattaat tccaccatct ttnccttaagc caatttaaag ccaaccaagt 540  
 tggaaaataa atttgcagcn ttcngtaacc aaatgtctnt 580

<210> 8811

<211> 583

<212> DNA

<213> Homo sapiens

<400> 8811

atataaaaat aagtgtttat taacaaatgg gctcagagta gaaaatgcag acagatgggt 60  
 tcactttacc atattttggg atcatcatct tattgcgtac agcactgtag gcaagtaaac 120  
 gaaaccaaag gctggctccc ctggccgagg cctgggactg atgcaagaca gccagccagt 180  
 cacctccgcc tcccatgaac ctcttgaaa acttctcctg tcccacttct gtcaccctcc 240  
 agctccttga gagagccaga gttgagaaga aaatgagcct gaagttgaaa gggaaagtgc 300  
 ttgcctgaaa cagtgtctggg aataagtcca gaccatttcc ctcaagagcc acctcttcac 360  
 tccttaagcc agaggacacc acaagacac agttaatggc ctctcatgcc actcctcagg 420  
 tggcttgtga gggcagccag tgagggactg caggatttca ngggaagtag ctcanatggn 480  
 ccactcagaa cttttggaag aatttgangg acaagggtccc gcagtcgcac ttttgagcat 540  
 nttggcattg tccaaataaa tggggtcaag ctttttcaat cng 583

<210> 8812

<211> 506

<212> DNA

<213> Homo sapiens

<400> 8812

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agaacaaaat ggttttaatc aattgcgtca ccctcactct cctgggagcg gagcaacaaa   60
aaggctcggc tcctggtgag tgggtgggttg atcgctgcat ccagtgtaaa gcttggggct  120
gctggggagg gaggggccga gtaagggaact ttcccatctg agtggctcag gagacccacc  180
cctctccctt cagagcagca ggggacagag aaaagccatc acttcttttg tctttgtggc  240
ggctcancat gtgggatggg aaggagggca gaaagggcag agaagggccc ttagcaggaa  300
gcgccacctc agcagagtag gcctggctgg gagctctggc agaaaggtca cagtgaggct  360
gaggagcgcc caagaggaga atggccgtag tgcagaagtg ctggcatgga tgggtggggt  420
aaggtgcant gccccaccct ntgccanggc ccttgggaaa ggcaaaccct ccaaagtggc  480
catgaaaata ggtncagggn cnnact                                     506
    
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<210> 8813

<211> 473

<212> DNA

<213> Homo sapiens

<400> 8813

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actttgagta tcttgctttt gaagctgttt aatacaacaa tgatatcttc taggtctgct   60
tgagagtcag ttccttnatg cccaactatt tgataaatat cttcagattt tccttgggtg  120
aacctcagta tccaagcacc tgggtttgct tttaattgaa aatacccatg atnggccatc  180
actattgtat caaccacagc aggtttattt ttngnccta gngtgaactg cagaccccca  240
ggaggctgtt ctgtcacttt atcaaagcat tgctcttcca gtagtaagta ttctagttca  300
tattctgctg taacagtttt ctcagtatcc tttaagngaa tattatcaag gncacagttg  360
ctgtgcactg tttcaaccaa ccagccttct ggagtaatca tgttgaggat taggaggggt  420
gattcaggaa tatccaaaaa ttttgccnct ggnccaanan aanaaacgnn tta          473
    
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<210> 8814

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8814

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cttgctaate tttctatatt taggggtag agacgggggt tcaccatgtt gccagcgtt   60
cctcccgcca cggttttcca aagtactggg attacaggca tgaaccgccg cacacaccac  120
ttgtatctcc tatgccgtg tcaagcagca gcagggcggg gggaacggct gcacctgcac  180
tgtggcagct cgcaggcctc cctgacgtcc aggcgagggc tttctcaagt gtgggtgcct  240
tgggtccgac ccaggacccc ctcccagct ccgctcctgt ggaggagacc ccaccatgct  300
tcctcaccac cggctggaga tgcctgacc cctgcccac tgcgccctaa cattactgac  360
tctaaaccag aaccagtgcc ccaccctgtc ctcaccgtcc tcacccacg gcattctgag  420
tgagggacgc ccaggccccc ccactccctg gactcacttc tgtccccccg agagaccttg  480
cccgggacat gtaccacact atgccctcta ctggccaact tanccctggg gaaccaatgg  540
gtgaagaagg gaagtcctca cggncagc                                     568

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<210> 8815

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8815

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aacagtccag ctgtggttta ttggtacat tcataagatg ttcactccta tatatatttt   60
ttccctaggg gtttctcatt tctagattta cactttccct catagcatgg tccctccaag  120
gtatatgctt ccgatacata aaatgtttgt aattttgtta attctgccat tcattagctc  180
aataatttct ctcattaaaa ttctgtaaac tatgaatttc aaagaagtct attctatatt  240
catctgggtc atgaagtttc ctctttgnga atcttatgtt agtaaaatga ctttacaacg  300

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tttaacatgg ttcctcacct gtatgaactt tttaaaaaa ggtatgactt gctgctaaaa 360  
 attttcagag tggttactaa attcagtttt cctgtgtatt gnctactatc tttttgcatg 420  
 taaagaacag ctttctgngg atgcctttcc atatgctggg cattcataaa gntctattca 480  
 gtatgagttt tctggaagat gncagaagga ttcncttacc gagttctctt tatatatgan 540  
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<210> 8816

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8816

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 tagtcagtta actattaaaa cagaaacttg aaatttaagt gacaaacgtt tgtagcactc 180  
 cctaaagaaa taggaaataa aaatgcattt atccatatga acttgattat tctgaattac 240  
 tgactataaa aaggctattg tgaaagatat cacactttga aacagcaa at gaattttcaa 300  
 ttttacattt aattataaga ccacaataaa aagttgaaca tgcgcatatc tatgcatttc 360  
 acagaagatt agtaaaactg atggcaactt cagaattatt tcatgaaggg tcaaacagtc 420  
 tttaccacaa ttttcccatg gtcttatect tcaaaataaa attccacaca ctatcaaact 480  
 aaatcaagat ttgctagtgg ataaaattac cattaatata ccgactctnt ntggaacagc 540  
 tccaacatct ggttttgcaa 560

<210> 8817

<211> 484

<212> DNA

<213> Homo sapiens

<400> 8817



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 gagtttcaag tgaagactga atgtcaactg caggctttcc gaattcctcg accatgtcca 180  
 tccatggatt ctcttcttgt ctagatttcc aagcatgaag atgctaacta aagcatttct 240  
 caatggggaa cacgaaaaga tttctattat tgtgggttct ccggtgttcc taaaggctga 300  
 gttataacta aaggatttca acctatttgt gagtttgatg gtaacgctgg aaaaatgctt 360  
 gaagttgtta ctttgcctcat tataggagta tggtttccct ccagganggt ttctctaaaa 420  
 ttaagagcta ttctacaaca gagaccctn tacacttaag gnatttatgg ganenggcct 480  
 ntna 484

<210> 8818

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8818

ctttatacag ttcactttta atcattcatc caaaaaacag tttcttccca tttaaaatgc 60  
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 aaatgctacc aagtcctctt tgaagcaaca ggcacataaa taatttaaaa ctctggaaac 180  
 aatttttaga accttaatgt gaaaaataga ctttttttta atgcatactc atttctgtca 240  
 aaggctaggc taaaagcttt ttgagggtca cactgcgtat accccttct catatgatgg 300  
 gtagttttgt ggacacagta aagagttaac ccagcttctt cggggacacc aggtcactct 360  
 ttctggacac ctgccatcag ttgccatgcc taacaaaccc ttccctggaa gcagttagaa 420  
 cataccttga gagtttagatc catcttggga gtccagactc atactacctt ttggccttgg 480  
 aagtcctaaa tgaaagtaat tgggcccgat gatgggcncg atattcatat tggccacttc 540  
 gtccttttga taactttt 558

<210> 8819

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8819

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gngtgtcatc ctcagaccag ccatttgcct nttccaaaaa gctggggcta agcatgtggg   60
tggttcaaga ggggcagccc ccaggcccca ggctggggccg cggtaccagt ggcaggtccc  120
cctgggtctc aggagcitan cttctacgga gctcaggtgt catttatggg gttgccagag  180
caagctgtta aagggcgaat ttggtgaagac tgagctcana nacctggtgg gagggcaagg  240
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taggctgtgg ctccgagtgt ccctggtgac tggaaagcct gaagggaagc tggaaactga  420
tacnggatgc ccgtggcttt gtgaaacana atgagctctt tcttntgaa aaagggcccn  480
aaggggaaaa aaaaaaaccc gacnntaca ctgggtcctt cattcctggc ccgngggana  540
natt                                                                    544

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<210> 8820

<211> 561

<212> DNA

<213> Homo sapiens

<400> 8820

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cgcatgtgga tgacctggtg gcaactgggac agagagccag gtcacacggc cnttcccacc   60
aacccccagn ggtgccaaagt caaatattatt gttttttaaa cacaaacttc agtgggaggg  120
gaaggagaaa cggaacccca cacccttag gcacctgcca tcggttgtcc tttggaggaa  180
gccacctccc ctctgcccg aggagaggct gntaggcagc tccccaaggc tgactccagc  240
cctttcggag gcccccatc aggaggcctt ggaaaagccg ccctgcattt gggcctgacg  300
taacgcacgc ggggtccaggg ctgctgagca gacagctgag gaccggntc cagccctgcc  360
cttgtggctg ctggtcctgg gaggctgcgg gtctacctct gcatgtgtgc acacaaggag  420
tggggatgaa cagcgtgctg ggttggtggg aggattcaac aagaaagtgt ccaagtgggt  480

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gcctggncctg gngcccaatc cccgaaccc antttgccn gtgaggnggn ccctgtccnt 540  
tgaccatttg ccggggccgg g 561

<210> 8821

<211> 536

<212> DNA

<213> Homo sapiens

<400> 8821

gcaataaaag cacagattta ttgaagcaaa agtatattcc acagagnggg agcaggctaa 60  
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cctattgggtt acaccctatg cgccaccaat cggaggccga agtgaaggct ccagtcctcc 180  
anactcttat tctcctagct caaagaaatc cactgatttc ctctgtagca tcttcagggtt 240  
ccatcttgac aacttcctct aaatccccag gggaanagtt gtttanagac tcctggatgc 300  
cctgaggggag cggntccana gcttgccctc cctcctctgn tttcacaacg gtccagcgat 360  
aggcactgtt ctntgacaat ccttcttggc actgtttatc gactgggtgga ggccctgggc 420  
tatgttccac tttggggaaa acagtancag anagaggaga atagntcctg gggctctaata 480  
tngggtctan gncctgaaag gcattttccc attagcccca gacaagcaat ggcccn 536

<210> 8822

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8822

canggaactt aaagagatta tatttcaaca aattaagtcc tcatttgtat gcaaaattat 60  
tcttccaatc ctctcattac tgacagatga tgagtcaatg acctttaaac aaggactctg 120  
cgctaggacc ctaaactgta tggttaaagg ttagtaggtt cagtacattc tttgtggttt 180  
tatataattg ctttgcaatt gattaaattg ctttctttta aaggaatata ttaaaattcc 240

tttaaaaaaa aagcaacatt ttttgaaaga agggatatgc agctataatt tcttaaatat 300  
gcataaaatg aacatatgtc aaaatcggaa atgctggcta ttcttgact cctaacatag 360  
gaaaatggtt tttaaaaaat taaagaaaaa agccaaacat ccttaactta agaaacttaa 420  
ggagttttca caattcctaa gtcaatattc ctgactaaga gccttgacta tgaagaggca 480  
ggaatntaaa gaacctcaat aaaataaata cngtaaaaac caaaccaaaa cttgggatat 540  
agaatcttaa atctttggtt ttc 563

<210> 8823

<211> 490

<212> DNA

<213> Homo sapiens

<400> 8823

catataaacc acagaatata tttaattcaa attaaacatg aaactagaat aatgttcggt 60  
ccttatcaag tagcaattac attgtttaaa aaaaaaaaaa agaacagtac atttctgtct 120  
acattccgac aatccaacga ggcggcatgg gtcacatcca gtttgatgag gtgacagacc 180  
cagcagtcac catccatggg catggttctg aggggactgg ggagacacag accatacatg 240  
atacaaaatg attctgcagc aagtctgaag gagcgcagcc tccctcctaa tacataagaa 300  
tgaacgtcca ggtagcagag agtaggcgac ttgcataatg agcgcathtt attaaataga 360  
tagttaacgc actgcttctt actcattcca agttgctgta ggtgctgccc gnattaacag 420  
cagggacaaa agcttcctat gcgcgtttca gcnggaatac tntntccact ccaggnactt 480  
nttgntttgg 490

<210> 8824

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8824

gagacagagt cttgccctgt tgcccaggct ggagtgcagn ggcgcgatct ccgctcactg 60  
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 tacaggngcc caccactaca cccggctaata tttttgtatg tttagtanan acgggggttc 180  
 accatgttag ccaggatggt ctcgatctcc aggatcagtt tcttgagtct tttctctttt 240  
 gcctcttagt canaatccta agaacataac caggaaacaa atgaggcaag caagatcctg 300  
 ctataaatca aagaactact agactcatga aataatttta aatgcgtggt aacctagagt 360  
 gaaaactaga aattgacagc cccaattttt ttttaagggc anatggtact ttacatcttg 420  
 ggncttaggc ataaaactat ctggaacaaa aggctangga tcgagtcatt ataaaggcac 480  
 tttatgccta aagatttcaa acttggagct ttttaaggga attgggggttc acttanttaa 540  
 acaccagtng gaat 554

<210> 8825

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8825

atattttagt gcacaattta ttttaaaatc cacacaagaa acccagaaat gcagcattat 60  
 cttcagacat cacattctag ctctgtttta ataccacata tgctaaaaac cgacgccagg 120  
 acattctcta aatgagttac aaatcagttt ctggaaagga agtgctccat gaaaagctta 180  
 tagcaagata actcaggctt tcagggtggcg tatggcacgt gaattagcct tacagtaatt 240  
 gtgtacatag tatgttttagt cattattgaa tcaaaagttt caggaagtac cttttttaat 300  
 gcatacgctg agagaaccgt caatatgcct ttgttctctg tgagggatct gccattctgg 360  
 aggtacaaat actgcagata gaatatcacc gcaggactac gtcaagttca gagtgttcag 420  
 gatcatttct atataaaact acaattagct gaactatggc aaaggtcctt gaacataaag 480  
 ctttcttcat tcattggatc ttaataagtn gaaggcncta ccggaaagct gnttaaagga 540  
 ttttaattnc tccagttttg att 563

<210> 8826

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8826

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ccattacagn gcacatttat tgactctgtg tatcttcaca gtgtgatctt caccacagct   60
tgcaaagngt aaccactcag caccttctgc ttccttctgt tcagtttttc cactgcaatt  120
cttccagcat aattttctga tagccagtgt atgactttgg ctttgacttg tttctacaca  180
gnggggtccag tcatttatatt ctggaacttg atcagtcctt ttccaggtat ataagcaaata  240
ctttccacac tccaatccta ctgcaaccac gtatcgttga gaagggtgga gcactgggca  300
gacgtgaca gctgtcacag cccacccac gtccaggact gaggagcagg ggccaatgtt  360
gtgctcaata cagtcacag tggagtcgca ctcacccag acaaccacct tttgtctcgc  420
actcccagtg aagaaatact tgctgtcagg actccaatca caagacaaa taattctact  480
gngcacagaa gtaatttggg gggtgaaggc aaaaagacta aaaactggct tgaactaggn  540
gaaaatggga tcccggtttt tccaaagn                                     568
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<210> 8827

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8827

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ccagttaaata tcagttttat tgttttccgt tacatgttca ctccctgttc cttctcgccg   60
cctgggtctgg tgggggcata ggagagggag ggaggactga aggtcataca tttctgataa  120
tgtcgctttc taaagggtcg tgacattttt gtacatcttt tccatctttt agtagcaagt  180
ggttgctgca gaccagaagt gaaccaaata aagactcctg ctctgtgcag ctctcagact  240
cctgctctgt gcagctctca caaagatcac agctgctttt gtacattcca gtaactgcat  300
gacacaaaac ggtacctgtg agcaggaaac acattcacac catgagacat gcacagaggc  360
agggtgccct gagcgaagtt gtgcagagat ctaggcctag gggcagtcag ctccctgccgc  420
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aacacaacct agaaaaccaa ggcgagaacg gccccttgcc ttnacancg agggcanang 480  
gcaaaagccc tttcctgnga attccaggag gattcancca agggtaaaag ccccgggtct 540  
ganaaaatcg aatc 554

<210> 8828

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8828

gaaatgtaaa actcagttta atttcaagtt tgtatagaga atgtatgcca cagtttgtat 60  
tttataaacn caacctatct tattataaat ncaaaataag aaaaagngat ncgttagctg 120  
ttatgaaggg ngaaaacatt atataaacct caaaaggctg ctttctgcat ctgcatctat 180  
gtaatttcat ggttctntac caatttcatt tacagaaata atctctatag tcaaattatt 240  
gntcactttc atgcccacac atgggaagng gtaggngaata atctgtagga atncaattta 300  
ttggctgctc ctccactcan aagtagccct gngtctgtcc agtctacact canaactttg 360  
ncttcatgag cagccagatc atagagagga gccttacaac ttcttgtatc ccacagctta 420  
acaatgttat ctaaagatcc tgaaatcagc tgctgttcat gggtagggag accattttac 480  
tgggggcacc caccngtntg tgacgttggg gnnagggacc ccaaggaccc atntttngtt 540  
ngggac 546

<210> 8829

<211> 498

<212> DNA

<213> Homo sapiens

<400> 8829

cactacttaa tgcatttaata tccaaccct cattggaatc atcttggttaa catttaagat 60  
tctacaacag ttataatgcg acgattcaga ggtgggtctca aagttgttac agtggttaaaa 120

aaattatagt aagcagtata aaattacaat ttattatggg gccaggggga ttcacaacca 180  
 tccttaaaaa cattaagagc aaaccacggc caggcatggt ggctcacacc tgtaatccca 240  
 gcactttggg aggctgaggt gggcagatca cttgaggtca ggagticaac atgatgaaac 300  
 cccgtctcta ctaaataatac aaaaattagc cagtcgatgat gtcgtacacc tgttggtccca 360  
 gctactcgga gggctgaggc atgagaatcg cttgaacctg ggaggcggac gttgcagtga 420  
 gccaaagatag cgccactgca ctccagcctg ggaaacagag cgagactccg tctnaaaanc 480  
 aaancananc anngaaac 498

<210> 8830

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8830

gcagaagcaa tgctaaggat aaaatatacct gactaccttt attgacatga tttgtgttta 60  
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 aaagtatttt tacatacaca tttgatgctc acattacaaa cttaatatct ataaacttga 180  
 aacttgTTTT gcacaagtct atggctttac tacttttcaa gacaaaagtc acatattaaa 240  
 atacaaacta ctcaaaagca aatagttgtc aagaatgtgg ttacaagac agatcttaca 300  
 gataatacag actatattat gatttatctg tttgaaaaca gaaagtagtg tattatactg 360  
 aattctggta taagggtgcgc aggaaacttt acttacaatc ctttattttc ataaggtaaa 420  
 caccaaagta tttctcacat atattaccac cagatttttt ttaaaccaaa tttccggttt 480  
 aaaaatcaca cactggccaa cacagnaatt cgaaatgcta ggaaaaggct agcatntgaa 540  
 ggaaaacctg gcttaagcnt tctaa 565

<210> 8831

<211> 562

<212> DNA

<213> Homo sapiens



<400> 8831

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aacataccc tttattaaca tctaggtaat atctgtaata ttccttgctc ctcateccca 60
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ttttggatgc atgctggggg aggaaagcat attgtttgta gtcaccctgg cgtgctaagg 180
tatattattc cccagtaatt ctctcaaggt gggcatatgc aaaacataat ctctaaattc 240
ttcaatacta agaaatacct ttgttttacc cctaaaatca aatgccattt tggctggata 300
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tctagcatcc agtgtgtcca gtgataagtc tgctgtcaac ctgattcttg ttccttggtg 420
ggtaatttct cttctctctc tagaagccct taattatttc tctttatcac tagaattcca 480
aaatttcacc aagaagtgtc taggangcag tctcttttat caaattttac tanggnacct 540
cgacaagcac tggcaatttn ag 562

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<210> 8832

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8832

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atttgagaca gagtttact cattgcccag gctgggggtgc aatggcgcaa ctgtggctca 60
ctgcaacctc cacctactgg gtccaagcaa ttctcctgcc tcagcctctg gaggagctgg 120
cattacaggt gccgccacca tgcccagcta atttttgtat ttttagtaaa gacagggttc 180
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ctctgtctcc cgggctcaag caattctctc ctcacctccg agtagctggg attacagggg 480
tgtgccactg ggcctgggta attttggatt ttagtanana tgggggttca ctatcttggc 540
cagctgggct tga 553

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<210> 8833

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8833

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aaagttagtt aaatacagtg cctagaagga acagacggcc cagcgcaaca ggtcgaggcc 60
tttgtccttg atgatttttt tttcctctgg ctacgttcag tccgactgag tgcagcgcta 120
tgcatatgta aacatattcg ttaaagccga tcacctttaa ggtcattcgg aaaaaagcgg 180
tccttgtttt cgcggtgtgg gtgtgggtcg taacagcagt ctattcccc cgggaggaag 240
gctcttgggc gttggagagt ccactcggg ttgtgccaca ggacaatgtg ggcagggcgt 300
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accgctcgta ccctgcacct tgccggcgct cagcaactgc cgttntcgc ctttcgtcca 480
nagcccgcgc cttcttgccg tcgcgcaccc cttgttgttc gcgcgccaag ccggggcaac 540
cgntgcc                                           548

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<210> 8834

<211> 350

<212> DNA

<213> Homo sapiens

<400> 8834

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aagttgaaca gaacatttta ttctcagca attctatgcg tccaaattaa acatgagatg 60
aatagagact ttattgagaa agcaagagaa aattcctatc aacccaagg aggactcaaa 120
gtgaggctgg aagaggactt agaagagtat gaaagtcctc taagatttta tctaagttgc 180
cttttctggg tgggaaagtt taacctagn gactaaggcc atcacatatg aagaatgttt 240
aagttggagg tggcaacgtg aattgcaaac agggcctgct tcagtgactg tgtgcctgta 300

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gtcccagnta ctcgggagtc tgtntnaggc caggggtgcc agngcncnn

350

<210> 8835

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8835

cccttcaaaa acttttattt gtatcaacag ttcctagctc ttgacttagc ttagagcttt 60  
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 aatcatttct attttctggc ttacccttg gaataagcca aaaataaaac caaagttaca 180  
 tttcctgaca gatggctaag aaaacaatag aaggaacatc ctgaattcta gagttgactc 240  
 ttgctggtga agtacacctt cagcttagtc cattctccta agtaaagcct gaaggaaaac 300  
 tcttaacacc taattctttg tggaaaaatg atcaactagc catttcacag gctatagaac 360  
 aaaagtacaa ttgggcatct ttccttatgt cctgggatca ggggtgctta catttaacat 420  
 tgatcaggtg aagaggagag gctgtgccta aggtctgaga aaaggcttgc tctaagcaag 480  
 ctgnggtgag gcacaggatg actaggaat ggcaganaac angntggcct actgtcagnn 540

<210> 8836

<211> 526

<212> DNA

<213> Homo sapiens

<400> 8836

gacgcataaa ccaatTTTTT tncctcatcg atgttncaaa ccacttaagg aaatgacatc 60  
 attcangaac attgggctac gtgtcatttt gcttaaagtc agtttctaan aacctttcga 120  
 tggcatttaa ggacttaact ggagttncaa ttgagtgcctt actatgtgtc ttgcacctnt 180  
 gaatatttaa cgtnttacct catttaatct tcacaacaac aacttatgta ggnagtagta 240  
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gagtggttgg aacagatatt tgagaacagg caacatggct tcaaaatcta agctcttgcc 360  
 taccantaa ctactccctt tcaacgaaag actagtacgt tatttgaacc tgaataccct 420  
 gaaagtaaca agcaaatttt ataattcctt ttctgttgn cagcatattn canattggca 480  
 atgganaaat tctttgtttg ccnccaattt ttagaannaa tggggg 526

<210> 8837

<211> 570

<212> DNA

<213> Homo sapiens

<400> 8837

aagaacaaag ttttgggcaa actagtaatt tatttacaat tgtaatttat aaacagtaac 60  
 acaaacatct ttacattaat attatgaaaa atgtcccatg gctgaaatgg gtgaaaaatg 120  
 agacttcagt acattttctaa aggggtgcca agaaaaggga aaaaatgcaa ttacaacagt 180  
 tttaggggag agttatatca agtaatgcac ctaggtgcaa tttcatgcag atgtcttcaa 240  
 ccactcaaac tgtttttatt agatattaga ataaaatttc ccaaattatg ttgcctttta 300  
 ttcacttgat ttccataagt aaatcaaaat gactggctgt taacagggta catctaaata 360  
 tttctcccat caaccctta gagataatcc cttacatttt aggacatgtc agattgtggg 420  
 tattgcaact tcccaaattg attttacaaa atactattcc atggccctaa atgtgttcct 480  
 ggacttctct taccaaattg gctaatatgg accattataa attaaatgaa gaacgctgca 540  
 aaatccgcag acaatttcaa gacnnttaaa 570

<210> 8838

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8838

actgaaaaac tcagacttta ttcagattaa gtctctctac aaaaagtagg gttctgtccc 60

atgtgtctct gacncattta caaaataacca gttttttaaa attttgggtca aattatgagt 120  
 ggttgattta aaaacttttc caagaagaag aaaagcatgg agtcgtaatt taaagaactc 180  
 aataaaaaact tctatTTTTT attttaaaat aatatacnca gngttatTTT cttcaagacc 240  
 gtcctgtgga tgtgaaatcc gtcttcgcgt catgtatctc ccatatccag cagttcagcc 300  
 atccagctac ctttgggacc ctgctgcacc ttgngtttgc tggggagtca ctggagagtg 360  
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 acaggggata ggtgatccac tacttgctgt anaatgncct tactttcact aggaggcaga 480  
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<210> 8839

<211> 515

<212> DNA

<213> Homo sapiens

<400> 8839

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 gtaaacataa acaaatcatt acaatacaac aggaaaagag ctagagcgaa gatatagaac 180  
 aattgcacag aggaaagagt aactaattct gcctgaaggt aacaaggaag agatggcact 240  
 tgattttgaa gtttaaggat gagtgatatt ttagcacggc agagggcaga gggggcacag 300  
 ggcatccag gcagagggaa tagcatgtgc aaaggcactg aggtaaaaac atgagcatgg 360  
 ttggttcaga gaatggtgtt gaagggtaca cagaggcggg ctgtaaaggg tcttgtagac 420  
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 tccatctggt cacangntnt cntaanagnc tntgt 515

<210> 8840

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8840

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cctaatecct aaaatgcgga taatacttgc tttacagaat gtagcagcag tttgcagaga 180
tgaacatgt gcttggcaca ctgtagatgc tcaacaaatg gcatcatatt acttcctaga 240
gtcgggagaa gttgtaaaat gaccagcttt cttatgctta ctcggagtat tattctggcc 300
tttctcataa tggagacagc tttatcgatt tagttgaaga aatgctgaaa attgggggtg 360
aattagacat tatgttttaa agttcaaaga gggccagact tgcgatgac cagaaattag 420
aagaaactag agctttgaga accaggaaaa ggccgattgg aaccaaaaaa gaatgaccag 480
gaaagatcaa atttcctagg aaatgnatat acatgctgat ggcataagga naggctntgc 540
tganaaggat tgggnatgtg aagggtaan 569

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<210> 8841

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8841

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aaagtaagaa atacttagga ataaacataa aaaaactgan aatttcacac cttgaaatct 180
acaaacatta accaaaatga ttaaaaacat atatatacaa cccacattga tggtttggaa 240
aatcaatat tggatttata taagccaatg ngattcanat tcaacacaat acctataaaa 300
accctattg gtttttgtta aagaaacaaa aagcaggctg ggaaaagtga ctcacgtntg 360
ttggccaggc tgatctcaaa ctcacgacct caagngatct atccacctg ggctcctaaa 420
gtgctgggtt tacaggcgtg agccacacgc ctggcccaat cctnttaaca taaacncttt 480
aatgncaatt aatgcttcac cggaangttt taagtcactc aaactcaagc caattctgga 540

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atggctttct ggcaa

555

<210> 8842

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8842

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tgcgaccaca ttctgaatat ttaccaatat tttttaatat taaggcagct gttagtcgga 180
tgtgtttagt tattgggtccc tctttttcat ctgtaaaatc tcgaaagaca aggtttcttg 240
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cctgcaagtg ggtaataaaa gaaaaccgct gtcgctgaaa aggtcacaa ccttcccaaa 480
gacactgccc tggatatata tcttttcctc catgtcagtt gctgcatggg tagaaacctg 540
tganggtgtc tggaaaccct ttttacna 568
    
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<210> 8843

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8843

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ctagaacaca aaagggttaa ataagatttt ctcttttaaa gatacaagaa ttttagcttt 180
ccttacattt aacaaacttc acagaacaga tactgcaggg gaacaagccc cccccccac 240
    
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ccccccagc tctaagtcag gaagcgaaca tgggcttcgc tccccaggc cagctcccct 300  
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 gggctgcctc actgaggatg gccgtatggt ggcaagggt gtggcttgac agcantggta 480  
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<210> 8844

<211> 485

<212> DNA

<213> Homo sapiens

<400> 8844

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 tcagttttca taaagtgcaa taaacaaaat aaatagatga aaaaagcttt gaagatttat 180  
 atacagtttt gaggttaaga taaattactg actatattcc tttcagcctt ttaactctgt 240  
 gaaagctgta acgtacatta aaagcacatt gaactagggt aaataatgat ctttccccct 300  
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<210> 8845

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8845



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gngaaaaaac aattttgtac agtatttttag tagttacatg attagcaagc aacagagaag 180  
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gctaggcaat aaaggaaaat ttcccatcca gtcattgaga aatgctaaag gcattttatg 300  
gtgacatgaa tgcttaagtt agtatgcaac ctatagggca aataaaactg ctatataggt 360  
tggtaat tttgcattaaat attngtagta tggcttacc atttatctaa catttanta 420  
tacataaaat ttttaagtctg ggttctcaaa acggtngctt gggatttngg tatagggggc 480  
tggtatctca aagctcattc agtatctttn cttctttcaa anggttaatg ggactggngc 540  
aatggttgga a 551

<210> 8846

<211> 693

<212> DNA

<213> Homo sapiens

<400> 8846

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agagccccct tcccgttac aggctggacc agttacagtc ccgggcagga gaggtctggg 120  
attgttgatga aaatgggggtg ggggcggtgt gtttggtgc tgataatgaa ggaatttagt 180  
gcagccaggg gttaggcctg ggacctgcct gacaggatgt ttctcacagc tcaggccctg 240  
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tgggctaaca ttcttatttc ttactttagt ataaaaagga aaaaggcgct cgttgatcat 360  
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tttttgcatg cttgcctgga taaaacaatt cagccttttg gaaatgaanc gggatacaag 540  
gttaaataatg catggcccaa tcattagtaa caggaagagg aagatcaggg gtcctangaa 600  
gggggcaacc cagggtatcc atcttanaag ggatgatcct tgccccagga ntcancgact 660  
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<210> 8847

<211> 832

<212> DNA

<213> Homo sapiens

<400> 8847

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tgcagtctgt acttgagtag tgtttattta gtggactttg gtaaagccct tcatacatat  180
taatctcttc acagtacaca tttaatgatg gtccagtatt ctcaaaaaaa aaaaaaaaag  240
cctactttta agactaatca ataaattaaa caaaacaaaa ccaaacaat gttccccac  300
ccccaaagc tagcagttgt gagttgtatt tatattgaaa cctaattgtt taaaaatagt  360
tctggttctc caaccacccc atccacccc gggtatgcag caatagtaat caattatttt  420
attctacctt cccaaaagat tattaatcca gtgttcttta gctttttaa atataaattg  480
ggaaagtgtt attaataagc ttttttaaaa ggcataattt tctataacaa gaatggcata  540
taaaccaatc aataaaagta ttgacaaga cattaagtta ccacaggcac tggctgttgt  600
ttcaagttgg gatctctatc ccaatatctt acattcatag cattattgag gtagttaaaa  660
tactgaaaat tggactccag gttgctgggt tctgaatgng aatgtgaaag gatataattt  720
cttttgagcc tactttncct caaataattc aaggtttctt ggggtaagga acttcccaa  780
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<210> 8848

<211> 599

<212> DNA

<213> Homo sapiens

<400> 8848

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gattcttatt tttttaatat aatttatctt gctgagatag caagtcaagt ttataaagaa   60

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 tcataacaca attattcttt tacactttta acaatataac ttctcccgtt cagaataaat 360  
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 tgggatttng gaaaggtttg tttaccnct cctggaattg ccttggcccc tgcacnccgc 540  
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<210> 8849

<211> 600

<212> DNA

<213> Homo sapiens

<400> 8849

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 catcttcttc ctctgttatg tggttgggggt gctgtgcacc caattcgtct ttgcaggaat 180  
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 cccatggctg ggggcgggcc atgacagggc ctctggatta anccaccctg agctctccct 360  
 ccgctagcac acaancacan aacgtgaaat aaacccatct ccagtgaag tgtgcctcaa 420  
 gggtcagtct tcaatctent cctaaataag ttgggncccta tttttgctt ccaaccccca 480  
 ttttgcctct taactttccc cattgtcctg ttcccanc cccagggcang cagcctaatt 540  
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<210> 8850

<211> 587

<212> DNA

<213> Homo sapiens

<400> 8850

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tgctagaatg ctgtttacct gtttcaacag ctcccatcaa ctaccgctac tcactttaca 180
tagaaataaa aacagctact attcattgag cctattttcta tatgggaatc ttagtgtcct 240
cacacacatt aattcactca attctcccca aactctatga ggtaaactat tatgcccatt 300
ttagactcaa atgtcaaaac catatatgca ttttgttcca ctgaccccaa gtggttaactg 360
tgagtagtag ttctaacaat gaggcatttt ttaaaaagtc ctattaatgt ttacctataa 420
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gtctaatatg tggcaacagt aaatgaacaa tctcatcctt aaaacagggtg ttatgacttt 540
tacntntgac aaacccccga attaatnca aactctcnaa cctgccn 587
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<210> 8851

<211> 591

<212> DNA

<213> Homo sapiens

<400> 8851

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cgtatttgag tcagtgggtc gatggggcag ttgcgctcag ctgcagtcct tgactccgga 180
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gttctagtag ccatttagcc catggctctt caagccaatt cacactggga aaaacacacc 300
ctcacaagat gcctatccat ttgagttcat acaggtttta gtagctagaa ctaaaaaaca 360
tttttaaa at tcttaaaca aattgggtacc aaagaaaact tgccatactt aaacagtata 420
tatgttcctt tttttggctg aaaaattcaa gtttgtgcta tataaaacac taacagttac 480
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taaagactag gaaaatttgc agganaaagn tatttttaac ttcccaataa tcctaaagga 540  
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<210> 8852

<211> 599

<212> DNA

<213> Homo sapiens

<400> 8852

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ccactgcctc tgcagtatca aanagaatta gtctttccac aaaacagatt ttaacagcca 180  
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<210> 8853

<211> 604

<212> DNA

<213> Homo sapiens

<400> 8853

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 aaccnccng aaccaccaac aaaaccgtca tcccccnta cntttaacca aaacccccctt 600  
 aacc 604

<210> 8854

<211> 587

<212> DNA

<213> Homo sapiens

<400> 8854

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 aggcaactgt ctttacctgt attaatcat ttaattctta caaccacaaa tgaaccctac 360  
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 tcttaaccac agtgggtgtat tgcctaaacg tctttgttct cgtgatttca agggataaaa 480  
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<210> 8855

<211> 592

<212> DNA

<213> Homo sapiens

<400> 8855

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<210> 8856

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8856

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aaaaaacgt gatctggctg tcgcccacac tggagtgcag tggggcgacc atggctcact   60
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ccacagacac atactatcat gtcagctac ttttacttct ttctaaaggt ctactctgc  180
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atgtgactct tcaaactgca gattccacct gctctgccgg acctggacac acacttctcn  480
caaagggagc catgaaatct gtgcttccaa atcactggtc taagcaacct tcactcctac  540

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tccaaaatgc caagaaaata aaatg

565

<210> 8857

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8857

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tactagatat agttatttct gcattaaact gctttccgga atccctaaac aatatagtgt	120
attgtacaac cataatgcaa gttatgtttt gcatacaaaa tatgttcttt acatcaaagc	180
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aagtaaattgt ctagccttaa ctgaagttc aagaagttgt agctacatac tacattagta	480
aaatctgaaa taaaattatn ccngtttaa cccctcnca gttcctaaaa aaatnttatn	540
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<210> 8858

<211> 594

<212> DNA

<213> Homo sapiens

<400> 8858

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tttatataca agtcttaaaa cacaacaatc atgaacaatg cacaccgttc aatgtagtta	180
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tggtttaaat ttgagttcca tacaattcta cataactcta tttgttact ataacanaaa 420  
tacagtgtnt agttttgggc aanaattaat gaattactgg ttttataatt aantgaaaan 480  
aacagttttt ggtgccatgt taaaacnaaa ctgnatttct ancttacaac cttaaaaatg 540  
gaaaaatttt atgtttaanc aaaaccgaac ccaggtnnta ccttaaaatt aaaa 594

<210> 8859

<211> 379

<212> DNA

<213> Homo sapiens

<400> 8859

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gtttcctccc tgatgccctc tttggtcact ntgnnaatcc gggagtgcgt cccnngtgta 180  
canatctctc tcagccgcag aaatgaagac atctttcacc acccgcatgg ctctgtccaa 240  
ggacagcgga acatgctcca cattctgggt gttcttaaaa ccaaccnggt tgtcaancac 300  
gggctgtanc atggcacttg ctgancctcc agccttgaag gantctctct ggtaanacct 360  
actggatcta agcngtgta 379

<210> 8860

<211> 601

<212> DNA

<213> Homo sapiens

<400> 8860

ccttgcaccc tctaatttca gattggatcat tttgttaaaa caatganaag tgttattgtc 60  
attatactgc cattctataa actcactgat acaatctgcc cgggattcct gttctttggc 120

caatcgaact ctcttgatca tcgcctcaat ttcattctcta gcctgcatca catctctgct 180  
aattcccaaa accttaatca aaggtctctt atgggtccagg gaaatgttaa tatttaactt 240  
cttctgcagc tcattcaact cctgatactc cttttcatca aagtctttga tgcactcatc 300  
ttcactgggtg taaggacact gttctttttc aatcagggtct tntagccagg agatagcgta 360  
ttccacacac gtgacatttt caccacacac ccgaaaagtt gctgattctg ttttcttttc 420  
caaaacaaaa tgattctttt ttgggggaga ttgctttgaa aagcccaaaa atgatgcaag 480  
ttagacatc acagactgtt gggaaaaaan ctgaatccct ccccttcctc cagttgggna 540  
tnaaaccatc cattacttga aggcgaaaaan anaaaaactt taactttttn caanaaatgg 600  
g 601

<210> 8861

<211> 613

<212> DNA

<213> Homo sapiens

<400> 8861

gggtgttaaat acattttattg taaactttan acacaaaaat aagtctctta ggccattcac 60  
atgcacatta aaaccaacag gtgcaaacta caacaatgca tataattata caaatgatgc 120  
cactctgtga tgtttacagg attgctgtcc atgcaagggtg atcataggca ttatttatga 180  
agccttaaga tccagaagtg ttgttactac caaacctctg attaacactg tgaagtaagt 240  
gttttggaag gcagttccat gagttggcta acatttcttt aaagcaaatg actgcttcta 300  
agcttagccg tacaagagat ttggttgaa ctgaaaatat tagtatttca ttactgtgtg 360  
cagctctgtg atggacaagc aagttgttgg cacatccacc aaaaacaatt acttctcctt 420  
catcgctggc acaagctgtg tgccataacc ttggtttttc ggtatatgga tgattaaatt 480  
gtatcccatt ccattttttac tgatgccagt aagttcccag gcactnactt aatggctgtt 540  
ttannantgg ttaaattcccc ccanaaaaaa aaaaaaaaaat cgnaaaaaac nggggtttat 600  
tgaattgccaa aaa 613

<210> 8862

<211> 160

<212> DNA

<213> Homo sapiens

<400> 8862

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ggcgggggga ggggggaaca gagcctcgct ccgtcatcca ggctgcagtg cagtggcgtg   60
atgtcggctc actgcaacct ctgcctcctg ggttcatgca gttctcctgc ctcagcctcn  120
cgagtaacta gnactacang catgcncnan cattccccacn                          160
```

<210> 8863

<211> 585

<212> DNA

<213> Homo sapiens

<400> 8863

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gttctctgac aggttttatta gctttcatgt taatggatgt ttttaaacc tgcaaccctc   60
tgtcaacttc tttccacatc aagaggccat ganatacagt aatggcctct taagantcat  120
gccacataaa gatgatgact ttgatgtcct ggcctgcctc ctgtaacaat gtgaggctgt  180
tttgggcaca tgctgtaata acaacaggac tatcacagga acaatgaagc aganaagcag  240
aaggtgccta caaagtttta cctaaatgtc ttgtttgtca ggatggagct gatgcgcca  300
tactggcaga acaattagca cagagtágtt ctgaaaagga ggaagaattc acagagcatc  360
agttatgggt gcaggaagt cgccatctgc caatgggcac canantgtca ctgtactgga  420
aggggaaaaa gaatgggctg gatnaaatcc aagggcctct ctgcccatgt tcaaagtcag  480
taactgctct gcctgccggc tcacaatgca tgccnanttt taatnacncc cccccaaaat  540
ggggtnatc ancttactta gtcccncaac ttcaaggaac ggтта                          585
```

<210> 8864

<211> 495

<212> DNA

<213> Homo sapiens

<400> 8864

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ctgattcaca cgaataactaa cgtttaatcc tgttttcaaa gtccaagatt gaaaacttgc 60
aattaaacac tgagcaagcc acatgtttta gtaatatattc ttaaaaagtc ttaaagaaaa 120
aagtatgata caggacctaa gttttcagtg gcatatatac tattaacaca tgttctgaaa 180
tctggtaggt cacatcagtc ctgaattaac ttttaataat aataataata aaaaaactaa 240
ctgagcttta tactttttct atgccactat agctttcttt cacctcattt tttaaatgtc 300
gatcttcact ttatgccggt ctcagtattc ttccaaaaat cttcgaacag tagtcctaca 360
acgcaaagtt tggggaaaaa tgataattag acaacatgtn taaggccaat ttttatgana 420
aagtgttngn ccagtcacta actggctaata naacatgttt tcatggaatg cttgtntcct 480
ttttaattat caang 495

```

<210> 8865

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8865

```

cttttttgag atggagtctc cctctgtcac caggctggag tgcagtggcg tgatctcggc 60
tcaactgcaac ctccacctcc ctggttcaag cgattctcca gcctcagcct cctgagtagc 120
tgggactgca ggcgtgcact accacgcccc gctaattttt gcagtttttc agtanagacg 180
gggtttcacc atgttggcca ggatggtctc gaactctcaa cctcataatc cgcctgcctt 240
ggcccccaa agtgctggga ttacaggcgt gagccaccgc acctggcccc gatttttata 300
taactgattg gcactcaata ttacttgctg acagtttctt ctcccttctt aatatgagca 360
ttgtatataa ctggaattaa tattcattct caaagcatat atgctacaaa tggcaaaaaa 420
ttacaaactt gtaaatagcc acctatctca aaaactgtta acttgtggca antaaaaaaa 480
ttaccgctt catttgggtt ttaatccatt tagtcagcac attttcatca ancacctact 540
atntnttngg caagcattgt nanaaa 566

```

<210> 8866

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8866

```
gtggaatgct cacagcctct tcagtgtttt cgatcccaac aaccagcaca taaacatctt   60
tcaatgtatg attaatgtta agcatatttc cttaactgaa aaagaggcta aataatcaca  120
ttggctaaca ttttagcagg taataacccc atgcttgtaa gcactttaca tgaattaact  180
cacttaaagc cagagcaact ctatgaagta ggtacttttt tttatagtca tagagagggt  240
aagtaacttg tccaaagtaa tacagagtat tacctgggaa ctagaatttg aattgagaga  300
gtgttattaa tctgtgcaat taaccactac accatacctc agcaaaaaat atctactgta  360
ttaagcctgg aatagaagac acaatcaata aaatttanca tgagggaagg ggcaagatgg  420
ccgactagag gcagccagat agacagggat gactggccac ttctaaaagt ctccaaaagg  480
aaggccnttg aaanacccaa ccncttctcc atngcattgc tctctcctga cttgggttagg  540
anccncctat taaanacctt cc                                           562
```

<210> 8867

<211> 579

<212> DNA

<213> Homo sapiens

<400> 8867

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aacaatttaa aatatttttaa atgacaaaac aattaaatga caattaacaa taatgttagc   60
ctataaagct attttctaaa acaatttggt aaggagagta acattgtttt atagttctac  120
aaatctcttt aatgttttagc ttgatagaag gcagctgaat taccatacct gcttctgcat  180
tcaacttgct gcaatacatg ttgtaaaacc tggctccaca caggtagata ttttgaaaaa  240
gaggggtatt taatagcttt ttcagatgat agtgtgcttt tatattatac caaacattga  300
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tgaagtagtt gaaggatact ggttcttagt caattctcat aaaaattatc tcttaaaact 360  
 atgacattat tggagcacia taccaaaaac taatcaggtc tctgtaccat ggttcttaca 420  
 aatttaagat gaggcttcta gaagccggag tcatattccc ttactttcct gcccaaagca 480  
 ccattcctgt ttcctcccca aggttcagct acagggcaaa aaaaaaaaaat ntccggccnc 540  
 catgaacttg cttattaaaa atcccgttg gtaaagggtt 579

<210> 8868

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8868

gttgagcagc caaaaagtca tggtttatta tatctgaana aatttcataa ttcaaacaca 60  
 accaaactgt acattttaca atcacattct atttgtaaac agttaaaagc cactgacttc 120  
 ttttgcattc taggacacaa acagttagaa tcaaggcaat gatatgatgg caaattctgt 180  
 actgttaaaa tttttaccct tgttttagtct ctcttctttg actaagcaag cattataata 240  
 ccatttgtgg gcaaaaaaag gggggaggaa anaaagttta aaatgggtgta actcgttagt 300  
 ttgcaacaac attttaaatt ttctttatac aacaaacaac tctgtaagcc caataccttg 360  
 gttacagtaf gcatagttac tgatttcggc tttaaggtag aacagttaaa cattaacaca 420  
 gtcacgagag ancagaaaca tatggagcca cttgatggga ttacaaaaaa ttattaccta 480  
 ttgattatta acaaaccacn tcnctcncta ataaaaaaaa nanctctgaa acnaaatnt 539

<210> 8869

<211> 511

<212> DNA

<213> Homo sapiens

<400> 8869

gggtgccttt ttgactgaan gcaagctcac agatgaagca gangactgaa gatctcgatc 60

tgaaccattt gccggtgtaa actcatgtct aaaatgcttg ttagaattga gacaggggtca 120  
 gtgtttacac acagcccttc atttatatta gagataaaac ctatttcttg ttcttgcatt 180  
 cacattaagt catgatgtaa gaatatccta cttggttcct tcagagaatt cttgaaaagt 240  
 tcgatttaca gaagactgct atcatggatg ttctttaact cctcagancg gcggcagcgc 300  
 anggtggcgg gcgantaagc ccatctccca ncagcggcga cagcagcctc tttctgtaca 360  
 tctgcttgta cttccaacct gttaaaacag tttaccatgg cacttcctga cagactcccc 420  
 gttatactgg ctccagctaa tgccatgggtg ctgggcgttt cactcnagtt gtctccgant 480  
 gntccnattc catcnagttg ntccncttg g 511

<210> 8870

<211> 489

<212> DNA

<213> Homo sapiens

<400> 8870

atggaacaag aattcaattt attctctatt tataaaacat ttttttaaag tgccttgggt 60  
 atgaaaatct aaatgtctgc ggtgtgatca gtcaggagca cgtaactatc actcttcgca 120  
 tcctttggtc actggganat cctttggggg ctgggaggtc cttctgtccc atgctaaagg 180  
 aaaagcttca caagggtann agccacanaa ccctcngcaa gaaaggccgg tcaggganaa 240  
 tgaatggtac anaaaggaaa ggaaggaaag ggggtggaac acaggtanaa ggcaaggaag 300  
 ggatgccgca ctggagaccg atggggacac tctaattgtg caagaaggag gaccttcctt 360  
 cttgaatgct gaacacagct agtctgaact tccttggaaa ntccanctgt ttgcccatgc 420  
 atanggcaa ctctccctgc aaagcaacaa atgtggcttc tatcnggaan gaaaantatc 480  
 catcantgt 489

<210> 8871

<211> 586

<212> DNA

<213> Homo sapiens

<400> 8871

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aacattcaga agtagagttt aattagctgc taattagcac aggaatcgtg gaacaggtaa   60
ctcaaaattt acattactta gaacaagaaa aaagtcagaa taatgcagtc ttcatttgtg  120
aagcttacia tcttctcaga ttagagtgtc cagatctggg aatattttct gttagaaata  180
cagaggaaga taaaagaact tgcagtagac catgccactg aagagtaaac agaaagcaca  240
gagaaagaat ttatagcttt aagtattttc ttcacaagta tatgaaattt atgaatgaga  300
tatggtataa tcataaatac ctgtgcaatg ttatcatgtt ctcgactata aaatggctgt  360
gtattttcat tataagcaag caaaacatgt gacttcagcc tttctcaaga ttttagataa  420
actatattta agctcacatt aaataccata gctagtttta agatacccat ttcctttttt  480
ctaaataaat atgttgttca ggggtttttt gaaattcctg aagtnaaten cncccaagtt  540
ggtgagccat ttttatactt tataccnagg gtttaataa aataac                    586

```

<210> 8872

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8872

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ccaagacaga gtctcactct gtcaccagg ctggagtgc gtggcacgat ctcagctcac   60
tgcaacttct gcctccagtg ttcaaagat tctcgtgcct tagcttcctg agtagctggg  120
actacaggca tgtaccacca ccccggttaa tttttgtatt tttagtagag acagggtttt  180
gccacgttgg ccaggctggt ctggaacttg tgacctcagg tgatctgccc gccttggcct  240
cccaaagtgc tgggattaca ggcgtgagcc accatgcctg gcccaaagga aattcttata  300
ggcacagtta ttgacctaa tgtcttaaaa ttatcttgct taggtgcgaa ccagaaggaa  360
actaaggcta aaaccaaatt acaaatcaa attccatgat tcaaatttaa aataggagat  420
agccatccaa atgagatgag agaattgatt ctgagagcgg gagagactca tacccttcac  480
atctgggaac tgccangccc anaaganggc ctanctgnac ccaggctttg gcctttccan  540
ggggattttt aa                                                         552

```



<210> 8873

<211> 546

<212> DNA

<213> Homo sapiens

<400> 8873

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cagtagatca gcacttattt taattactga gatagagtca cacttgacag aagcaagccc 60
tgcggtatat ggcatcatca caccaccggt gggatatttta atcctaaaac tgagacagag 120
tttacttaaa catttaaggc ttgagtttcc tctgtacagt gtggaggtga ttaagaaaat 180
taatcctaac atgaagattt ttcattccagt taaaaaaga aatactttaa aaacgacctg 240
cccttccaaa acatgaagtt aacttggagt ttttctgtga tatgacaaac taggcataat 300
cctatctcgg aattgttgag tagaaaattt atgtactaat actcctgtta aaattcaaca 360
gctttattgt gaaagaatcc agagatctca cactgaaaaa aatactaaca cagctcatat 420
ataaattact tatctataag gaacaattat agaaggaatc taaatggggc aattttaaca 480
aaccaggcaa aatatccent ttcctgaatn taagggactc caagnentgg agtttttagat 540
tnangn 546
```

<210> 8874

<211> 497

<212> DNA

<213> Homo sapiens

<400> 8874

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ggattttttt gtgctttaat gttcgcagtc acacgaaagt ggcatctcca tcagcactgg 60
ggcggccgcc tcctcatcag ccgacagctg cacggctccc gcctctcatc catttggtct 120
gtttgcaagt tactagatca tacaaaaaat aaccgctaca aattctctgt atctggcata 180
taaaaactga gcaaaaagta tctcttaaag caaaacatct cagaaaaaat acaacacagg 240
tttaacttct gcagtacttt gttcatataa aacactagta aaataggctt cttaaaaatt 300
```

aaatagtga ataccaacca aattatatac attgttacag tacaagtga tgaggcaaaa 360  
tatccagttc ttagtttccc aggtgggtgg ggggtggcctt cagtgcgtgg cacggagggg 420  
gtgacaggaa ggccacgttc cgatgtcaca gtcagcgcan aaagaagctt tgcnacnggc 480  
naaccgnttg gaannac 497

<210> 8875

<211> 499

<212> DNA

<213> Homo sapiens

<400> 8875

cctcagtcag atttcacttt atttgtatcg atgataatat taactcttca gatttataaa 60  
atgacaaaac ttgataatta cctggaaaca atttattatt aactaggtta accctaaatc 120  
catcaagaaa aaccaccta catattcagt gttaaaaaga gacattacga ctagcctggc 180  
caatatggca aaaccctgtc tctactaaaa atacaaattt tagcagggtta tagtggtacg 240  
tgcctgtaag tcccagctac tcagaggcta aggcaccaga atcgcttgaa tctgggaggc 300  
agaggttcaa gcgattcccc cgcctcagcc tcccgagtag ctgggatcac aggcattgcaa 360  
caccacgctc ggctagtttt ttatatcttt agtagagatg ggggtttcac catgttggcc 420  
aggctggtct tgaactcctg cctcatgac cgntagcctn cgctnccaaa gtgctgggat 480  
tacngngtg gcccgttnn 499

<210> 8876

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8876

gacaaggtcc cattctgtcg ctcatgctgg ggtgcagtgg cgcaatctca gttcactgca 60  
gaggttttta ataccatta gtgaaactag aagatcaggc tttagtctca gctggccccac 120

tgactttctg tatgaccctc aaccagcccc tgcccctctc tggtttccta tctataaaac 180  
 agtaggttta agccagctag gtaatgaggg ccagagaatc ccattaatcc cccaacacac 240  
 caggctgaga ggaaagagca gaaagttttc gtgttctggg ctgggggacc ttttgggagg 300  
 tctcactccc agcagctcca ctccctcgtc ctctctctcc gagctctggg ccagggtcct 360  
 ctcccgagcc ccagccatgg ganaggatct naggggtccc ctctggaagg gctggagcag 420  
 ntaaccnggg gtcactcccc cagcggggta ncagggaggg ctcaanggct tgaagtgaca 480  
 aggccatggn aacttcgaca cggggcccgg ggacagnccc caaaggtntt ggggnagnct 540  
 gggtact 548

<210> 8877

<211> 544

<212> DNA

<213> Homo sapiens

<400> 8877

gagatttaaa accagattta aaaccatcag ctcccaggag tgtggcctcc tccacctgct 60  
 ccccaacttt tctggttcca aaggttcaag ccaggctcaa ctcccactcc tctagtctcc 120  
 aaataagcgt agcacggaga gtctgagtga caatccactt taataatcca gcttcagctc 180  
 agctgagaac ttcccctctc aggtgcaaag ggatggcaga gaagtcttc caagagggct 240  
 caatccacta agagattatg gcttagagaa gggaacagct caaagaagcc cttgaagagg 300  
 gtgagggtct ggaggactcc tgtggtgcag gccatctccc ggatagagt catggccagt 360  
 tgggggctgc ctaaattcag caccgccgaa gccagccga gaaccnagat aggtccaatg 420  
 gtgggtncac anggggtgtc atttcngacc atgagatcct gcanggggga ccttgctttt 480  
 gtngggccct tttggatcaa gggcctttga ccccgngttt ggaagcttan cgtnccttgn 540  
 ctgt 544

<210> 8878

<211> 578

<212> DNA

<213> Homo sapiens

<400> 8878

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cctgggacag agtttcgctt tcgttgcca ggctggagt caatggcgcg atctcggctc 60
accccaacct ctgcctcccg ggttcaagcg gttctcctgt ctcaggagag ttgtcttaaa 120
ctacaattaa catcagttct gatatcagaa ttatctaagg acaccatctt atacctacct 180
ggtcattaac tgaaatttct ctctatagct tcatcattag acattaaaat tcctcatgct 240
taggctcagt gcatttacat ttcaaagaag acatcctatt tgcattacag aacaagcctt 300
gcacaatttg caagtgcac atctgttttc agatttcttt cctgnctaata attctgggtt 360
aacttagctg gaacatcttt gggtaanatg tgctgctggc anggaaacac aagctttttt 420
anggcaatgg ntctcaatt tttccaaaa actccagtat tgnactggca nccnggataa 480
taaaatttct taaagggaat aatngccaaa aaaatatatt tccnggatta cctggttaac 540
caaaaatgga tgatagggtt ttacnctgn ggcaatga 578
```

<210> 8879

<211> 573

<212> DNA

<213> Homo sapiens

<400> 8879

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gcatagaaca agattttggtt ttcagagttt tcttccttcc cttccccca attgttagca 60
gcttgatgtg tcattctccc cagcagggga gggggtggaa tggcttgggt tgtaaacctc 120
ctccccagc cttcctgtcc cttggagggg cagttcagct gggttctggt tcagggtcag 180
gcaggcagtt aaggctggac ggggtgtgcc cgtaacaatg tgcctcatgg cctgcagctg 240
ctctgggttt gactccagac tccggtcgta cagcttgagt ttcacatctg agggcagcag 300
cgggacgtcc cgaggtgcc aaggaaagag catgggccac agcagccagc cgccctgtca 360
gctccagggc acggtgcttg gactcgcaac ggctggcggt tgaaggtaaa gttcaccttg 420
aaaggtcaac ccattccaaa agcggntcan gangctcatg gaaaagctca acttgacacc 480
ggnccaattc accttgcccc aaaggccctt atttttgaan ggggncctcc gggggggntt 540
```

cccaggacaa aanggccaac aagtggcccc cct

573

<210> 8880

<211> 352

<212> DNA

<213> Homo sapiens

<400> 8880

ccatcacact gaacaagcat ttattccag ggattcccaa catgtgagca ggggtggaagc 60  
ctntgacaag gngggccana acctttggat ttggtttggg ggccaaaatc aactaaggct 120  
canagaacat acaaagcctg cgtgaagggtg gtgagctgct cccaccttca caggtnitggg 180  
ggtcctaaac ccttgagacc atggtcagtc ctgtgcccaa gcctntnttt ttgcaggccc 240  
tgaaactttc actacagntc anacactgnt gcacgggccc gggagggaag ggggtgcttc 300  
cgggnaactg ttcacagccc cttaacttan cctccctggn gaccanggca ca 352

<210> 8881

<211> 453

<212> DNA

<213> Homo sapiens

<400> 8881

aataaacata agagtgggtt tattgattac atacaatttt agctatatta atatatatta 60  
taaactttaa gaattagaaa taagtgactt ttatntttta accaagaata atctaagtta 120  
tggcagcatg ttcaatgaaa ggtaagtccg gcacaatttt tctatatctg tttctcagat 180  
aatcaggaac atcatccaag ctttacatta cgataccata atgaccctna gaacacaagt 240  
tccattaagt agaaatgaag catcatatgt tttctttttt aggaaagacc cccctttttg 300  
ttgtatagac atacccttaa taatcttact ctactgtaca aataactttt caccacaag 360  
agctgcctca agtaactttc attttggaag gctatcaagg cntgagacag agtancaaaa 420  
tgccactntg gactttgnat nttggngntt caa 453

<210> 8882

<211> 540

<212> DNA

<213> Homo sapiens

<400> 8882

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aggttgaatg aatgatttat atgttccatg tttatgtaag cacttaactt ctttaaaaag   60
aaactagttc tttcaaaaag agctctgaat tctgtctctg gttagaaagt gtgaacaatt  120
ctcagaactt gggacatgat ttttcttctc tctcacttct tataagcaga tgcccccttt  180
cagggcattt tcaggttgca caggcagaac taagtgagaa atacggctcc agaggccatt  240
cagtttgtct ggggtccatat gattgtagga gttgggtgtg ttagaattgg tgaacttgac  300
tttaagaaaa tctcttactt tttcttcaac ttccttttagg cctagacttg ttccaagtgt  360
ctcttcctcc aataagacag tcaggactaa ggctacatct ttgaaggccg cgttttcatg  420
gtcacaatat ttgtagaaga tcaaagtaga gcctgagctt ancactgaan ggtgcttata  480
atgagctggg aaagttttga cctttgngan gactggccaa anggatctat ttantggctn  540

```

<210> 8883

<211> 566

<212> DNA

<213> Homo sapiens

<400> 8883

```

cttggcaagc attcatttat tcacataaca taagccagac actatgccag gggctggcga   60
tacagaaatg agtaagacat gatccctggc ccctcccatc cctggaatgt ctactaggaa  120
gaagctgcta gaaaaagaca acatgctact ttaaagccaa gaggggccag tctccattc  180
cagcttggtg cacactgaac acatttgagg cttatgactg gttcttttac ttacaaatat  240
tgtttagaca cattttcaaa tgtcacacca atcaataata ataaggaatg gattttatct  300
atattgacag ttctttcaac cttaagagtg aactgctaca ggtaagattc aatcacattt  360

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ttcaggagaa agctattgag accaatatgc ttiggttatac taataagggt gggaatgact 420  
 tataatggct atttactcca ggcaaagaga aaaatncaac agaacntagg atcttggatt 480  
 tcaacgtagt tctctccat gggcatttct ttggccgta aggtcaatgc caactgggcc 540  
 cccagtgaac atgtcccccg gncctg 566

<210> 8884

<211> 502

<212> DNA

<213> Homo sapiens

<400> 8884

gaagatcaca ggggctttta taataaaata aacataaaca acactcgaat ctctttataa 60  
 atcccagagc acaatgtgcg ttttcttact tccttttcat ggaccccaaa taaagacttt 120  
 gacagccaga tatccaagat ccggatcagc cagcttccta aaattctect cttttttttt 180  
 aaggggtaga aaactggggg tatcccttgg tgggttagggg ttgcttagag actgtggtag 240  
 agatttggtg ttaacaaaaa tgtattttga aagcaggatt tcaattttct tatattgaat 300  
 ggcaaagggt ccatgcacct ggctatcttc atttctgaaa tgaatgcttt cattttattc 360  
 tctccagcta ccttctccct ttctttcctt tccaccccca ttgcctcctt tcagtggctt 420  
 tctttttctc cttattcttt cactccttct tctctcacag caaaatgttc tggaggatgt 480  
 nantgntnaa acngntanct cc 502

<210> 8885

<211> 558

<212> DNA

<213> Homo sapiens

<400> 8885

ggagttaaac tgtgctaaat tacagtagtg cttattagta actagatttc aaaaggttac 60  
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cacaggaagg aaactgattg tccattcttt gccaggaag tctcggtact ttatagattc 180  
 gtctttacct cttttttgtt gttgttcttc cgaaaaagca gtttaaattt ttttcttttt 240  
 ctttttatgc tagggacgtg gagatgttaa aacgacaaca aaaaatatat ataaaaacag 300  
 gaatgaaatc tgtgagagaa tatttttggg tctaaagacg ggtgcattcc gtttgtcttc 360  
 gcccgaaatcc cttgctggag accacacgag cagtgcatt gcacggagag gggcagcttt 420  
 tgggttccgc cgccgtcact gaaaccaccg gaaggcgggt cccgtcggaa gcatnacctt 480  
 ntcagaaca ncggaaggct tctttttggg ttcttcacat ttctgaattt gcaaactctga 540  
 tggccagctt tnnatccn 558

<210> 8886

<211> 509

<212> DNA

<213> Homo sapiens

<400> 8886

gagacggagt ttcactcttg ttgccaggc tggagtgcag tggccgtgat ctcggtcac 60  
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 actacaggtg cctgccacca ctccctggcta attttttgta ttttagtag agacgaagtt 180  
 tcactatatt ggccaggctg ctggtctcga actcctgacc tcgtgatctg cccgcctcgg 240  
 cctcccaaag tgctgggatt acaggcatga gccaccacgc ccagcccctg caagcagttt 300  
 ctttaactct gttgggatgc cattcgtggg caaagctaga tttgggacaa gttgccacgc 360  
 tctgctagga agagtcagtc ctccaggggga aagtttcttt tcaccttcgg gatcccaagg 420  
 ctttctgggt tgactcaagg atttatcgca ncctggatct ncangaaatn cttttgggcc 480  
 tcttggctng gccaggttgg ggctnggtg 509

<210> 8887

<211> 530

<212> DNA

<213> Homo sapiens



<400> 8887

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gcagattaga aaatitttaa tagttgattt gaaatgtatt cattcactca ttacattgng 60
ttgcanaaat acctgtcttt caccatgctt ggttcttcat acttacaata cagtttgtaa 120
gtggagggtta ggagtagctg agcaatctgg tagagagcag catgtggcac acagagttga 180
caaaactgaca gttggaactc ctgactttct ccattgcttc ctcagaagca aaatccttca 240
ccatgtgata taaagtagaa tgaaactcag tttcttcttt aagngcttca naaaatgcct 300
cactctcttc cttgatcttc agtctttgtg ctctgtcacc actaaacatt aaaagggccc 360
aattaggatt ctcagtacat tcttcaataa ggggttccct taccttaaata accacttttg 420
nagaattacn tagtagggtc ccttggttcc anccaatgca aaagccgaac cttattnngg 480
ccatnttgnc gaaaagcctt tacttttacc caagggancc ttattgtttt 530
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<210> 8888

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8888

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ctgagacagg gtctcactcc atcactcgct ggagtgcagt ggctcactgc agcctcgacc 60
tcccagactc aagcaatcct cccgccttag cctcctgagc agctgggact atgagtgcatt 120
gccagcacat ccagctaatt tttaaatttt aatgtagaga cgaggctctg ctatgttacc 180
caggccagtc tcggactcct gggctcaagc aatcctcctg ctttggcctc ccgaagtgct 240
ggggtgacag gaattaacat ttttgattta acttttgttt tggcagattc caaactaaag 300
acaacatgtt ctgacatcaa gaagtgccca ggccttccct acaggaaga attctgtgga 360
aactatgttc aaagaaaatc aagcctaaga gattacaggt ttcaacagac tggccttcac 420
ttctactagt tcaagaattg aatcctgtgg aaaaggacag ttiantgata tgggggaaat 480
ggaatncncc taaatgaaa agccttntt ggaaaaaatt taaattntaa agtccaaatt 540
cn 542
```

<210> 8889

<211> 533

<212> DNA

<213> Homo sapiens

<400> 8889

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gtgggtaaga tagtaggtgt atatatttat gggatacttt gatacaggta tgcaatgcat   60
aataatcaca gggtaaaggg ggtatccatc cctcaagca tttattcttt gtgttacaaa  120
caatgcaatt atgctcttta tttttaaatt gaggctggac acggtagctc acccatgtaa  180
ttccagcact ttgggtggct aaggcaagcg tattgcttgt gctcaggagt ttgagaccag  240
cctgggcaat gagacaaaac cccgtctcta caaaaaaata caaaaaaatt agcctgggtgt  300
gggtggcacac accccgcggn ccagctact cgggaaggct gangcaggag aatcacccga  360
accaggaag ccggangttg cagtgaacca agatcacgcc attgcattnc ancctgggca  420
acaagcgcga aacttcatct taagaaccaa aaaaaatctt gcaaattctgc caatgcaca  480
tgggtaccct atcttctctt ggttnataag gccctgggac ttcctttgga ata          533
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<210> 8890

<211> 382

<212> DNA

<213> Homo sapiens

<400> 8890

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aaatgatatt ttctttatct taaatccaga gaatgattta acttaagaaa aagttctaga   60
catgaaaaaa gaataaaata gttaagggat aagcagaaca caaggcaaaa aataacatca  120
aaacttcaat ggctaatatg aaggctctgt attaaaaaca aaacaacaaa aaacggtaaa  180
attttatcaa gagacataag taaaacgaca aacataacag tccctaaaca ggaagacaca  240
gtgctgttaa aatgacaatt atgtttcagt tatcaattga atgcaatttc aaacaaaaac  300
caagcttagt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  360
tttttttttt ntntntnnnt nn                                382
```

<210> 8891

<211> 552

<212> DNA

<213> Homo sapiens

<400> 8891

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gaggagagct tttctacttt attacaaaga gaagaagcct ttatgtggtc agaaaataca 60
agattgatct ttttttctct tcctatgaaa cgctgctgtt caaacagcca gagtgaattg 120
tctcagttca cttcttttaa gtcccatcac attcacttgg gtatggatgt ccttggctgc 180
tgaaaatctg gcccttttag tgcacagggc gacaaagtcc cctgaccagc agttccagaa 240
tgtcccatTT tcatatattg catccatgca cacctcctaa aaatgaggta cagcaggggca 300
aacattttcc aaaatagatg tcatatatat aatatataca cattccgtac atacatacct 360
ttattcatgt gatgtccaaa aatttaaaaa aaatgtccac gtttattaca aaatcgtagc 420
aagactggac aggtgggttg ctcatcttgg aaaggatgaa gctcaantaa taccctaaacc 480
ctgggaaaac catccagaga attgnnggca atatctttct ttttaaccag gcaggatatt 540
cttgcattaa gt 552
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<210> 8892

<211> 523

<212> DNA

<213> Homo sapiens

<400> 8892

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aactttatca tttataaagc catacaatgc attgcaaaga aacaaagcag ctgtacagga 60
gtggggacnc gtcagtgtac aatacattca tgtccaggat aaggngcata cncaggatt 120
tatacncggg ggcagcggct ataggcacga tgatacaaaa tataaagtat atttccatct 180
atataaatac ncagaaagcg tgtgttccac gtggttgggg gtggccgaca gtgtaggacg 240
tgtggcatta acagccccgg tgctgccgtg caggagagtct ttcttcttca ccttagcata 300
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caggctccca tntagnggcc cctgcgtgtg tcccaccacc tntccatgc cgtcatctcg 360  
atgcccactg aagttgtcgt aggagtccca gcggatgaag ggggtcanna ggtgttatag 420  
tccacaagac acgcttgggc ccgttttcca agngcttcat gccttgaatt ttctttgggc 480  
ccttaagaaa aatccaactt ccactttggc catacttttg gga 523

<210> 8893

<211> 471

<212> DNA

<213> Homo sapiens

<400> 8893

gtcgttttat tctataatit ttaattagt acgttaaaca tctttcctat cggccattit 60  
acatattitit tccttatgag ttgccttcac ttatcttcag caaaattatc tattgagata 120  
tctttttitit cctgtaatit ggaagtgtc ttgatatgct gaaatgtctg cactgccaca 180  
ttttgcccta ttgtttcttc agtttgcgg ttgcttgcag ttgtgcttat ggcgttccact 240  
gtatggaagt gttgtttgtc catcaaaagc aaatctattg agtctttitit ctccatggct 300  
cctgccttcg gtcataaact ctacaggta ctacaatgaa cactcgccac tgttggttacc 360  
atggtgcaga tgtcttctgn atccttccag aaaaccattit gaggagtgac cttttgcaaa 420  
atgtncann tcttgncaaa gttttccagc tgccaggnaa aaaggtcctn a 471

<210> 8894

<211> 531

<212> DNA

<213> Homo sapiens

<400> 8894

gagatgaagt ttactcttg ttgccaggc tgaagcacag tggcacgac tcactgcaac 60  
ctccgcctcc caggttcaag tgattctccc gcttcagcct cctgagtagc tgggattaca 120  
ggtgcacgcc accacgcccg gctaattitc gtagtttttag taaagacagg gtttcacat 180

gttgccagg ctggtcttga actcctgacc tcaggtgatc caccgcctt ggcctcccaa 240  
 agtgctggga ttacaggcgt gagccactgc acccggccca tggatcagag ttttaattaa 300  
 tcatttngt tttgaaaagc ccacagtaga gacctctagt tcagtaaaaa taacttgnnt 360  
 tccttttagg attggtacca cagggaaca cagcttttca aagcgcctta cggggaagac 420  
 tgagcctgga atcttgacca atttgtnggg caaancctta aggaaccctg gcccaanccn 480  
 ccggcccttt naccggaggg cccatttcc ctggttanaa aantttcccc a 531

<210> 8895

<211> 419

<212> DNA

<213> Homo sapiens

<400> 8895

ccaataaagc agtttatttt ctgagagccc gtgccctgtc ccatcccgcc ccacgagccc 60  
 atccaggagc cacacaccct gcctgggctg tgagcactat tctcctgggtg acacggcgct 120  
 cagcccaggg gacctgggac aagagctgct ctgtcctgct tggaggctct cagaggagag 180  
 ccttgggggc tctgagcagc aggtacaccg tcctcccctc ctgccagcct ggttctgccc 240  
 tcaactggaag agtnaaccct gccagcagcg cccacagccc cagccccacg tccaggctgc 300  
 catgtcccgg cgggcagtgc ccaggcccag ttgtattttt tagcanactg gntgcactat 360  
 aaatagnngc angcctgtcc tacctgcatt ttgcaattnt tncgaacngg taatgctgg 419

<210> 8896

<211> 425

<212> DNA

<213> Homo sapiens

<400> 8896

ccctcctgaa caggcattta atagtcttat ttcagttgga agcaatagtt ggaaaataag 60  
 ttacaggaac agaccaaaaa aaaaaaatt aaagtgttc aggctgcaaa cgtaaacata 120

aggggcagga ggctacctgg ccctgtcccc aacccctgag acaggaaggt cactgtcagg 180  
 ggcccttagc catcaccacc ctctaattct agccctgcgg gagggaggga gggaatgtca 240  
 gaggtgggaa agaactcaac gggaatgagg aagagacttt gtaaactcag aaccagggta 300  
 aagggccggg gacaaggag ctctgggaac ccttgccctg gcctaagggg tggggccagc 360  
 cccccccaca ggaacttngg ggaaatctgg tggnttannc ccagccatgc ccgnccactt 420  
 nanag 425

<210> 8897

<211> 502

<212> DNA

<213> Homo sapiens

<400> 8897

gaaataattc aaaaacttta ttgacctata acctgattag aatatgccag atgggaatca 60  
 atattgtaca gaaagtigtc agaatttttt acatagaaaa ctttacatct gtccatatac 120  
 attttgtcca tctgaaaaaa ttttctacat ccactgttaa tacggaatgc ttgacaatct 180  
 tgtcttttaa ccatcagagc acaattcaca gtatgaatac atttcagta aatctaacct 240  
 ccgcaaacca tgccagattt gttattttta tatattcaac gttaaattct gtacatagag 300  
 taaaacctac atcaagcccc accacccaaa agaaaagaaa atgacagcaa tctggattca 360  
 ttttgcagtg attcaagttt tggccataaa ggatcattct attttaatgg ctcatcttta 420  
 aaaggcctaa agagaaattt gtgacangga gntactgnca ntaggatat tttctaacct 480  
 ttttttccca atggngnaaa ng 502

<210> 8898

<211> 352

<212> DNA

<213> Homo sapiens

<400> 8898

acagatgagg agcctgaggc atanagaggn ttattaattt gtcaatcaaa aagttccaag 60  
 tttcaaagct gggatgaaaa gccaggtntt ntgacttgca ctntgtcaca ctggattttt 120  
 cctctgatcc agctgcagcc tcccataana agttcactnt taatttcag tcccatgctt 180  
 tgtcttggtc cctgtgagga aagggtcag ctaaaggcaa ctgttctata aggatgggta 240  
 ggtatcctgg caagatattt cctntgaaat agtaaagctg acctanaag ttactgtcta 300  
 gggcncntc agctgaataa agtctcccaa ggaaacnctg nggtanagca gt 352

<210> 8899

<211> 467

<212> DNA

<213> Homo sapiens

<400> 8899

aaccaaatat gaaaatgtgt tttatttctc agtacaaagc cagatactgt aaggctatga 60  
 aaaactgact agccagaggc cagaaaggac aaaaagaaga ctatctctgg cctgggtgccc 120  
 tgtgatctgg cgtgggtgtca caggaggtct ggggacagca gcaaagacct ggaccggtgg 180  
 aggtggatga gggaagcgat ctgccagccc ttccagcctc ccgcggctgg ggcctgagga 240  
 tcctgcctgc ctttgggggc cactggttgc ctggcctggc tggttccagg aatgaactgg 300  
 gagaggacag gaggtgcagg gctagagttg agaatgaaac tagggtgctg ttgcccccaa 360  
 aggtaccttc agtccctnta ccacatccan ttagaaagtc ttgacccttg gacaggcana 420  
 catggccttg gacttaaagg ctgtangaag gtangcttgt antnaca 467

<210> 8900

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8900

gatttttaaa tgagaaaatt tataaaagaa agaaattcat ggtcacaaaa tttaacatt 60

ttaatcctaa acattacagg gtaaatagat actggaccct atctccatac tccataaaat 120  
 cctaactttt agtttccatt tcaaatgttg ctgtaaccac taaaacacta gtggttttac 180  
 aacctctgga ttatggaaat acacatttct gaaataaatg ctacaaaaac aacaatggaa 240  
 gaaagccaaa caaacagtct ccatgaagga aaaaaaagtg gaacattttg aagcttttag 300  
 acacttctct ttccatgtct tatgattaac ctgtcaattc agtgcattgt atggtcatat 360  
 gtaatgggcc ccatggtgaa caaacatcta actagtgtcc attgattcca agttagtaga 420  
 tgatgaatct ttctggatac tttcaaaaga taccgcagc tcangggtag gactggactg 480  
 ggactggnat tcctcatcag tggactcttc tctgnttctg gnaagggtag ccatgctggt 540  
 accgggct 548

<210> 8901

<211> 533

<212> DNA

<213> Homo sapiens

<400> 8901

caatgcatga atatttgatt ttatttcaaa agacaattat ttataacact gaccctctat 60  
 caaaaagaat atgcttttct gatggggaag tgacaaaaaa aaaaactaca cagaacaaga 120  
 gtaataaagt tctcaagtaa ggattgcact ccaataggaa ttgagtgatt ctctcagaga 180  
 gcactcatta catcttagac aacgtcactc ttctttcctc ttggccatat gttcaggtct 240  
 catagtcttt ctgaacacag aatggcagtg gccagcattg tccattatct atgttccgct 300  
 tgtttactaa ttaaaaagct ttgggtctca gtgttgtaaa cgcaatttct gccttcgata 360  
 tcaaaaagtg agtgaatgag acaagattag ttgaaggaag tacttgatat tttactccag 420  
 atagctgaat gaaaatgggt attctccctt ggctttggag gccatcggtt cctactccca 480  
 ngnttttaca gaccgggaat taaaangtn acttgcaaat ttttacaagg ngg 533

<210> 8902

<211> 546

<212> DNA



<213> Homo sapiens

<400> 8902

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gtcctgtact gccaggttgg aataatgacc aaagggaggg gcaaaacaaa cagatatgct 60
cactgtggca gaagtcactc caaagatcaa agacttgatt cagccgtggc tgccaaaatc 120
agaaccacag tgggtgctca tcagcacggt gccctcagaa ccacatgggc tacccttgat 180
aggttagcag cttgggggtgc aggccccgca tcttgcttag aaccacctgc tgagaactgg 240
atgtgcacat taccttacct actcacaaca ttgatttca actcaattct gctctagtat 300
tatgtttatt gaatgacgga agtctaacag acactgtaaa aatccaattt cacatcttat 360
agtacccaaa agggaactgt gattttccta tatcagtgag caaaatcttg agccaattag 420
taacaagatc acccaatttc tagtatttct attgagatat atttctttag gtttctgnaa 480
nggggaaata atttttggna ccttagtata agcaatctta tattcattta taggggtatc 540
tcaagt 546
```

<210> 8903

<211> 545

<212> DNA

<213> Homo sapiens

<400> 8903

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agtagagaca cggtttcacc gtgttagtca ggatgggtct gatctcctga cctcgtgatc 60
cgccctgcctc ggccctcccaa agtgctggga ttacaggcgt gagccaccgc gcccggccag 120
ctttatcggt tttatcagct aagtttttaa aattgaaagt ccccccaaa ggggcagcat 180
atatgtaaat acctatcttt atctacctgt acttccttca ctaatatctt aattatcttt 240
ggtccttcct ttgaaggatg aaaaatttaa agctacatgt ttcgtatctt ctttgggcct 300
tctatcttgt gcctttcttg tttttggtga tttttttaga aaaagatatt taaaatggtc 360
attatcaagt actgtgggct cctaagagg aggaagggan gtaattggna cccaatgggt 420
acnttanagt ggaaggggaa aaaagctggg ggaaagtggc ttggagacct ttcttcaca 480
nganggccct gtgggccaaa ccactaagct ngggtanaac ctgantcttg atccactggg 540
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nntgg

545

<210> 8904

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8904

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cttgagacgg agtcttgctc tgtcaccag gatggagtgc agtggcacga tgtcggctca 60
ctgcaagcta cgcctcctgg gttcatgcca ttctcctgcc tcagcctccg gagtagctgg 120
gactacaggc gcccgccacc gctcccggct aatTTTTTat atttttagta gagacggggt 180
ttcactgtgg tctcgatctc ctgacctcgt gatccgcccc cctcggcctc ccaaagtgt 240
gggattacag gcgtgagcca ccacgccag cctaattggc ctatagttct atccatttca 300
gtgtataaca ctgtttgggt agtgcaattg gataaaaaga aggaggagta ttttaaggtag 360
ggaataaaag agatggcaaa tcattgactt ggtgtggcct tagatagcat taattaatgn 420
ttatctcgac cgtttgtgga agctcctaataa gggtttataa aagatttgag gatggccaac 480
ttttaaatec atnncnaaaa tctttgatac ctttntttt aagngggaan ggttnaattt 540
cctggcnt 548

```

<210> 8905

<211> 263

<212> DNA

<213> Homo sapiens

<400> 8905

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caggcatatt agctttaatg taggtggcca tgagttttta ggccaaggaa ggaataatgt 60
ntnatgtacc aaagcctttg gaccattttt ccatcatacg aatagaattc cctgttgcta 120
anccgatgat ncattaccct ttcccatag gtgtgagtgg cgtctgaat ggagaagttc 180
aatagttcng attgcagatc ctatgcanaa gaganaataa ggaaaataac cnnngnctcc 240

```

tgattaagc tgaggctggc aaa

263

<210> 8906

<211> 532

<212> DNA

<213> Homo sapiens

<400> 8906

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aagcactcaa tgtaggcatt ttaatcttct ggataacaga gtatcttttg agaaattaaa 60
atcgaattga ccatttgcaa tatttggttt tcctaataagg tactgtctta gtaaattgttt 120
aaatccaaac aaatcttctg ttcaccggga aaataactaat aaaaatacac tttctaaaaa 180
gaaattaaga aacactaggg aacacctaata gtaacagaaa gtagttcacg tttgttaata 240
aactgtatatt ttaaatagtc ctttggtttt aaatttttaa aacgtgcaga taatgtcatt 300
tggatgaaaa tataaatgaa acatcagttc actcttggct tcacaggttg cacagcttag 360
gttataatgc acacaagttt tataaggcct aatctaacaa gggcttggaa agtcttacct 420
cagtcagaat gacctttgat ggggttataa cggngtttgg tggtttgncc cctcgttca 480
nggataccat ancaccggtg atagtttcng nattggcagg ttttgggaaa an 532

```

<210> 8907

<211> 343

<212> DNA

<213> Homo sapiens

<400> 8907

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cataaaacca tgtttattca aaaaaatcta ttcagaaagt ctggaaagcg taataaatat 60
ctgtacagtg gccaccatc tcaaactga attacaaagc aggattgggt gaactgggac 120
tttgtgcaga tcttgctgtg agggctcctg gatcaggctt gaggccacaa agctgaatcc 180
tctaaacagg tctcgaatga caaccccctg ggaatggagg tagtccatgg tcttggtgat 240
gggtgcacagg gcgtnactgg ctctgcgctc cgagaagaat ctctgccgga ggatncggtc 300

```

caggagctnc ccancacgca tcagctncat taccaggncn caa

343

<210> 8908

<211> 429

<212> DNA

<213> Homo sapiens

<400> 8908

gtgtgtgagt cagggctctgg ctctgccacc caggctggag tgcagtggca ccatcacggc 60  
 tcaactgcagc ctccacctcc cagactcaag ggatactcct gcttccgcct cccaagtagc 120  
 tggaacata ggtgcatgtc accatgcctg gctcgccctg caattctaag ccctctgttg 180  
 atggaggtgg gatgggcgca gatccacagc gaccatgaaa tgcccagctt gcaactcaca 240  
 gtggaaggca ggcactgcag ggacagctca cggggaagaa ctgacacact ttctgtgacc 300  
 agtgccttg acatggcccg gagtcacatt ctaagggggg agggggggcac caaccttcan 360  
 ggctttcanc accccaaccc caaaagggcc ctggangaag gcccgttatg ggggggnccn 420  
 gngaggnct 429

<210> 8909

<211> 490

<212> DNA

<213> Homo sapiens

<400> 8909

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 tctggccatc ttataaagca gaccacatta tttgtttcca tatatactg tagatatttc 180  
 tctcccctca aatatttata tctcgactaa aaaaaggagg tgcaaagagt atataaagat 240  
 aaatgagatt ttcttgctgt tggtatagta caaacaccag atgactacca gtggagtaac 300  
 anggcaaac aaaaacacaa accccacctt cagtgaggaa tggaaggtct gtttaccgac 360

ctcaagtagc tgaatcacct gctgtaactg ggacctnnct gacaatcatg gggttttag 420  
 ggacatgggc ccagtggatg ggctttctac ctngttccan aanggccttat tgnggncctt 480  
 acaccccttt 490

<210> 8910

<211> 457

<212> DNA

<213> Homo sapiens

<400> 8910

aaaggcagag tctcactctg tcacgcaggc tggagtgcgg tggcatgac ttggctcact 60  
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 ttacaggtgc acaccacat gcatggctaa tttttgtatt ttagtagag atggggtttt 180  
 gccattttgc ccaggctggg cctgaactcc tgagctcaag caatccacct gctctggcct 240  
 cccaaaatgc tgggattata ggcatgagcc actgtgcccg gcctgtgggc catttttgat 300  
 tggccactc attcccaaag ggcgtgtac ccaggcaaaa tactcatata tgcaactaga 360  
 aatactgnct agagtttaca ctcatccta ttcaaaaaa tttntttta agttcagntg 420  
 aaatcattca gggnttcggn ntggcttcta ganggtt 457

<210> 8911

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8911

ggagagacaa ggtcttacta tataggtctt actatattgc ccagacaggt ttcctgggct 60  
 caagggatct tctgccttg gcctctcgaa gtgctgggat tacaggtgtg agccgtgtgc 120  
 caatgtgcct ggccagtttt taattttttt ttttttttga gccggagtct cgctctgtca 180  
 cccaggctgg agtgcagtag tgcaatctcg gctcactgca agctccgcct cccaggttca 240

cgctattctc ctgcctcagc ctcccagagta gctaggacta caggtgccca ccaccacgcc 300  
 cggctaattt ttigtatttt tagtagagac agggtttcac tgtgttagcc aggatgggcc 360  
 ttgaactcct gacctcatgt gatctgccct accttggcct cccaaagtgc tgggattata 420  
 ggggtgagcc atcgngcccg gccctttttg attctttacn agaatatgac tgaagataac 480  
 ttttttccat gcccttaatt ttngtccctt gtgggcatat tcatttcttc ctgnaaaang 540  
 gtaactgnnn a 551

<210> 8912

<211> 486

<212> DNA

<213> Homo sapiens

<400> 8912

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 ctctgcctc agcctcctga gtagctaaga ctacaggtgc catccaccac gcccaactaa 180  
 ttttttgat tttttttttt ttagaagaga tagggtttcc ctatgtttac caggttgggc 240  
 tcgaactcct cacctcgtga tctgcccacc ttggcctccc aaagtgctgg gattacaggc 300  
 gcgagccact gcactcgacc gccctgagct ttntttcctg caactagagg gtctgatctg 360  
 tctgcttggt aagaaactgc acaacttcca aaccatcagg gtaaggncgn gtgtgtcgtc 420  
 ttgagcattt ncntaaatng taaacatnac acgtaaagtt cacagnccaa attttcctgc 480  
 agcttt 486

<210> 8913

<211> 514

<212> DNA

<213> Homo sapiens

<400> 8913

acaagattaa aagaacatat ttcctattat accattggta gnactaggga ttacttggta 60  
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 attggcacc ctgactctcaa actctcatct ccaccaacaa tgtcttactg ttigtatca 180  
 ccaaaattat ctgttttttc cggggttgaa attgtagaaa gcactcaaaa ttaggatcat 240  
 atttcaatgt gtgtaggtga actaactgcc ccaaagacct acttaattaa actacatgcc 300  
 cttgtttttt aacaaagcat ctttaagtct cctgggtggg ttaagtgaat ttgataacct 360  
 taaaaagtc ctgtggattg ngtaattttt ttctccactg tagaagggtt aactatttca 420  
 ctttcacaga tgnactanat gnatcatgtt accctntaat aaaccattga aaccgatct 480  
 ggttccagaa nctggcnagt ancaactggt ctga 514

<210> 8914

<211> 509

<212> DNA

<213> Homo sapiens

<400> 8914

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 tacaggcgcc tgccacctca cccggccaat tttttgtatt tttagtagag atgggttttc 180  
 accacattag ccaggatggt ctcaatctcc tgacctgtg atccgtccac ctggcctcc 240  
 caaagtgtg ggattacagg cgtactgcgc ccgaccatt ttaaccattt ttaagtgtac 300  
 aatccagtgg gtatcagtta cattcataat ggctggtaca accaacta ccatctattt 360  
 ccaaactttt tcatcatcca aatagaactt ngttcctatt aagaaattaa ctggccaatt 420  
 tnccaagcct ttggtaacct nttctttctg ggtincaatga accnggncta tgctaganat 480  
 ttcggggtaa atnggaatca caggattgg 509

<210> 8915

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8915

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aaagttatat tggctctttt ggttttgttc gcacttccat atgaatttca aatctgcttt 60
tcaatttcta caaaaagcct gctagaaatt tgattagcac tgattggga agagttctca 120
ttttagcaat actgagactt ctgaccttta aacaaagtat atctctccga ttatttaggt 180
cttctttaat ttatttcagc aatgttttgt agtttttagt gtacaggctt tacacttatt 240
ttgtcagatt taccataag tatttctttc ttttttttg agacagagtc tcagtttggt 300
ccccaggctg gagtacagt gttcaatctc agctccctgc aacctctgca tcccaggctc 360
aagtgattgt tgtgtctcag cctcccaagt agctgggatt ataggacag gccaccatgc 420
ccagctaatt ttttgattt ttagtagaag ccaaggnttt gcccggtgct caggaagggc 480
tcttaacctt ctttcttgag ggantnggca taccactccc tntggcaaaa ncctggtngt 540
n 541

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<210> 8916

<211> 169

<212> DNA

<213> Homo sapiens

<400> 8916

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cagaaaataa actgctttat tggaattaca ggagtgttgg tggccggtgg gcagagccta 60
gcaggggggtg cagccgcaa ggcccgggtg tcccagctgt tgctcaggag ccgtgggccc 120
tgcaggagta tggggaggat atgatgtgtg gggagcaggg ggnnnnnnn 169

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<210> 8917

<211> 550

<212> DNA

<213> Homo sapiens



<400> 8917

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aaattttaa gcttttatta acaatcttct tacattacaa ggataaatg acaaaaagaa 60
agtttctgcg tacatattat gataaaccaa catagctcta tttgtatcca gtgttctagg 120
tcccgtcaca caggtactat aaagcgtagt ctgcaaaata ataacatcaa gaggtttttt 180
ttaaagaaag tattaacata ttaatatgta tgtgataata gactcctagg tatttcccc 240
catccccact tatttttccct ttgtgattga catgaaaatg gttcagcagc gttgtcctga 300
gtacagccag cagcagctgc tgcgcggagc gggctgggcc aaagccctgc ttctggactg 360
gagtagccat tgaatttatg agtgtgcaga tatgtctctc ccaccgtttc ctgctagctg 420
atgccccctg ccctggccag aaagncttgt ggatggtggg cagcgtgcc tggcgatgct 480
catgctgncc acatcctttc tctgacagn ggttgancag tgagggaagg cccgnacggt 540
tgcncttang 550

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<210> 8918

<211> 551

<212> DNA

<213> Homo sapiens

<400> 8918

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ctgtttttgg cacctttgtg gctgtgcaat ctgaagtctt gaattcattc atatattcat 60
ctaaaaacac tttaaaagtg ttgacccaaa ctctcactgg agattcacc agtgaatcac 120
gctgctcaag cctcatcgtc ttttcagaa tctgttcaaa tagtgcatag aggtctttat 180
accgtatgct tttcccatca tccatcgcca atgcagatga ataaaagctg aagatattct 240
gccgaaattc cttcagggtt tttttaata caacatccac tagtgtatcc ttcttgctgt 300
cttcattatc taggtcattc acctttttca gaagaaattc atccatgctt tttaaatcac 360
tgacacttgc tatgatctgg acagagtcac tttgccaatg catagaatcc aaagccacgt 420
tgctaattctt cacacttgcg ttgcgcttan ccctttggaa aaggtcttgg nccctttgaa 480
ttccttccgg gaactgccgg caagttctgg gcttnaaagg aggtgttggg gngatatgca 540
gctaatacatn n 551

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<210> 8919

<211> 553

<212> DNA

<213> Homo sapiens

<400> 8919

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aaattagcca agcgaggtgg ctcacacctg taatcccagc ttcctgggag tctgaggtgg   60
gaggttcact ggagcccaag agttcgagac tgcgctgagc tgtgatggtg ctactgcacc  120
ccagcctggg tgacagagtg agacccatt aaaaaaaaaa gaagaagaag aaagaaagaa  180
ctgtttatgg agcttgcaaa atcctcatct tcctacagga cacatacact atactcccca  240
cactcaaacc ctgactcttc catggctggg gctatcctga gtgacactat ttttctcaac  300
aatagaaaat agtttgatta tagtcctat ttcctgactc cggaggagct catccaactg  360
accaggtgg cagcctcagg tgttggcgtc accttctggg tagacatctg ctggacaccg  420
gaagggagtc naagctggca atcttgaagg ccacagtcta caacattttg ggtanaggtn  480
ctcangatt ttttaaaaat gggaatctga atgcctttta ggagttttc ctttaagnc 540
aacattcta tac                                     553

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<210> 8920

<211> 379

<212> DNA

<213> Homo sapiens

<400> 8920

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ccgcggttaag gcctgtgctt tattgtgggt caatctcggg ggacgcggng gccagcaggg   60
gcgacgcccc actcttgggt cccagcagca cagtgagcag cagccgnnc accctgagcc  120
gccgnacaga aacagacacg cgccggcatg cggccaccgc cagcctnagg gccaggagcc  180
cccaaggcga ggagccaccc aggactcgcc tntgaaacgt ccttccagcc gtcgtcgacc  240
gtggtgtctc cacgtggcct ggccagtta gtccagctcg atggggctgc cgtcgtntggg  300
gtctcctcc caatcctcct gntctgagga gccatgagg ctggtcanaa gggtcccgag  360

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caggccccng tagnannac

379

<210> 8921

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8921

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 cactgcaagc tccgcctacc gggctcaagc gattctcccg cctcagcctc ctgagtagct 120  
 gggattacag aggaaggagt cagtaaactt acaaagagat caatagaaat tatctaactt 180  
 gaaaaacagg agaaaagatt ttttaaaaaa atgaacaaag cttcagagag ctgtgaaaca 240  
 atatcaaaac atctatcact ttgtatttg aagttccaga aggggaatgg aaagatatta 300  
 gtacataaaa catttatitt gaagaaataa tggcagaaaa gttctctaata ttagtgaaag 360  
 atataaactt atgaaaatca aaaagtttgg ccaactccag atgggataaa ctcaaataca 420  
 atattttatg tatttatatg tgtaaaattc ctcaccagca gactttattt ctttttttga 480  
 ganggccnac ttgggantgg gccccatga ggtnccccn cnaaccaag ggggcncctt 540  
 t 541

<210> 8922

<211> 550

<212> DNA

<213> Homo sapiens

<400> 8922

gagacagagt ttgtctcttg ttgcccaggc tggagtgcaa tgggtgcaatc ttggctgacc 60  
 acaacctcca cctcccaggt tcaagcgatt ctctgcctc agcctcccaa gtagctggga 120  
 ttacaggcat gtgccgccac acccggtctaa ttttgtattt ttgtttacca gagatggggt 180  
 ttctccatgt tgggtcaagct ggtctcaaac tcctgacatt aggtgatcca tccgcctcgg 240

cctcccaaag tgctgggatt acaggcgtga gccaccacgc ccagccaaaa gcaagtttac 300  
 ctctacgttg aacagaagga gctagcagct ttggctgtgg aacacggggc atgggaaggg 360  
 ttttgtgggg agcactagga aggaagggt gagcagaaac agggcctctc acttctcctg 420  
 ggcaaagcgc tgcacttcct gggcgatcct gcgcacagcg gaacccccct gctncttctg 480  
 ggccaacacg ggcatnatng cctgggcnaa canggacctg tgcttcccg ggacaccatt 540  
 ttgggaaatn 550

<210> 8923

<211> 554

<212> DNA

<213> Homo sapiens

<400> 8923

aaaggcaaat aaaataagtt tattgggatg taaccccatc ataaattgag gagcatccat 60  
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 gccttaagtt aaccaagcat ttgataaca cattcaaatt taatatataa aaatagatgt 180  
 atcctggaag atataatgaa gaacatgcca tgtgtacaaa ttcagaatac gctttttaca 240  
 caaagaacta caaaaagtta caaagacagc cttcaggaac cacacttagg aaaagtgagc 300  
 cgagcagcct tcacgcaaag cctccttcaa agaagtctca caaagactcc agaaccagcc 360  
 gagtccgtcc tcggggctcc gtgtctttca acacaccgtg gacaggggag gaaatgggtt 420  
 ctgcttgctg accaccagct tntgatgctg atgcgatatg tagccctttg ccgggccccat 480  
 gtntntcaag ttagcngaa tacactgaac ttgnnaatg ggccacgtct tcaactggnt 540  
 ggaacttnaa ggga 554

<210> 8924

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8924

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 attgtaactt taaattaagt ggttaaaatt tcagatgaca gagccgataa ctggtaacag 120  
 cttcttgaag ttcatattaa gagtccaatt agaaacacta acaactacct ggcaatagtt 180  
 tgaaagaatc agaagggttc ggtgaagtga aaaaaaaatc cgaacatgca aaataccccc 240  
 caaaacacat gaccttcttt ttcattttat aatctaaact tgtaaaatat ttataaatac 300  
 atgatcattc tacacaatac agatcttcta gagcatttct aaaggatatt atagtttttg 360  
 gtcttaagga ataaagacta agatggaaaa ggagatgaaa acagtgaaat ctgaggaagc 420  
 aatacactct ntacacacaa gcaaactagt tcatccagtc aaggttagnc ggttcaggtc 480  
 agtncaatga tttcaaggca cctaagaaat caggaccoga tntttccct cctagagtta 540  
 caattnttc aaaagctcca angtttcctt aanggggggc g 581

<210> 8925

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8925

cagatatagg gtcttgctgt gttgcccggc tagagtgcag cggcacaaag ctcaccatgg 60  
 ccttcaactt cttggctcaa gagatcctcc tacctcagcc acctgggtaa aaagactaca 120  
 ggcatgtgct actatgcccg gctaattttt tgttattttt tgtagagaca gagtattgct 180  
 atattgccca ggatggcttt gaactcctgg cctcaagcaa tcctcccacc tttgcttccc 240  
 aaagtgtggt gattacaagc atggtgagcc ccagcatgaa cagaataaag aactcattta 300  
 atcagaataa acacaattat cctacttacc ttaatcacac tcccaatatg gttctgttga 360  
 attaagagat ctgtagtttc tgcagtgttc acagggagcc tttagaaaaa gctaaaagga 420  
 ggaaaaaatt attttaaat aagatcaaag catgattcta atacttcaa tcctattttc 480  
 aaatccaanc atgaaattct gnggcttaag atgatgatct agaaaagcaa ccccagangg 540  
 aaagaaaagc cccggagagt caaat 565

<210> 8926

<211> 459

<212> DNA

<213> Homo sapiens

<400> 8926

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agctttgata catgcatata ttttaataatg aaacaattca tcaacagcaa aaagaaagtn   60
gaaaaattcg taagacctca gggctgtgga agagaatggg acatcaagga aaaaagatat  120
atntagcaac caaccanana ggctgcatga tgagtgaagc aaaggcaagt ttggctaana  180
tagtattata tgctctgaaa agagaatggc tggataggta cccacttatg tgactgctta  240
ctagcaggca gccttactgn atgcctcatg gaatggaggc aaaaagccag ggaaagggtg  300
gaggggagaa ggaagagAAC tgtatnaaac ccagggtaaa caaatgagtg gggcagaatt  360
nccgagagag gactctaaag tcttttgntt ccttgaaagt ctaaaatnaa ccttaagggt  420
ttaactatgt cantcaaatt caatggacnc ntaatgngt                               459
    
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<210> 8927

<211> 570

<212> DNA

<213> Homo sapiens

<400> 8927

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ataaaacata aataatcatt tatactccat gattagcaat ggatcctgtc tgaagtaaAC   60
aaggacaatt aatacagtac aagatatttg tggttttgtt ttttataacc cactaagcca  120
agatttgat ctctgtatgg aactgatttt caaatggaca gaaatggctt ttgatctttc  180
tgaaccactt gtcttcaaAt tcttctgagg atacagtcac caaggcagtc agggctacgg  240
agccaacaca cttcacctct ggggtgaact catcttttat ttttctggg atatcttctc  300
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cttcaatttc ctgctgagtc ctttaagtcc tctccaaagc aaacgatgtt tgctgaggtt  420
gggtaaactg aagcagaagc ctggttcgta taaaagaggc catgctttag ctgagtctct  480
    
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atcaacactg nttctctctt tctgccata cagttttgga tatttgcaaa agcnttctna 540  
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<210> 8928

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8928

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 aaggctataa accacagaga tttcaagta ccactcagtg ttcaggaagc tgaacattaa 180  
 ttacaagtgc ttcttgaaag tacaagggtg aggatcttcc tggaagtact attggttaga 240  
 taaaatctct cctgggtggca gtgcctctaa tcagagtctg gggaatccaa atgagacgtg 300  
 gcaatcaaga ataagtacaa taaaagtcca aaaaggcttc aaaatttcca tctggaggaa 360  
 gccaaagtgc ataaggagac tcaaactggg tcaggtacag agaatggtaa aagcagcatt 420  
 ctaaacctag ccaagagcca ttgtctgtac actcagccgc aaaatgtgca tnaagactct 480  
 gtttggganc tanaaattgt ttcaggccag ccctttttaa aggtccccca ggctantggc 540  
 attnttttgg cncnngctaa aaa 563

<210> 8929

<211> 530

<212> DNA

<213> Homo sapiens

<400> 8929

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 tcaggtaaaa actgatgcca tgggtatcta gttgcatccc ttcttctcaa gactactcag 120  
 tatgtatgtg tatgccagca gtttatacta atatttttat ggcttagaat attatctcac 180

tttacagtga aggaggcata gtattcagga ttcacaataa cctaccaaag taaactgtcc 240  
aaggagtttg ttgtctccag ccattctctt ttcacctga cacacttta tttccacttg 300  
cgtttgacca tcagcggcag tagagaatac ctagggaaga agaaaccctc ctgggttgtc 360  
aatgtgatta acctactcca tttctataga aaaaatgaaa gccaaagggt tacattccaa 420  
gactggaaga ctctaattt accgnatgtt cagaacaaan gctgatgtct ttataggga 480  
ttgaagtngg gattantacn gcaaatnggc ctccattcc aactgnttca 530

<210> 8930

<211> 542

<212> DNA

<213> Homo sapiens

<400> 8930

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aggatttttg ataggaaggc ctcaagtgtt tcgggatacg cccttgttta cactgactac 120  
actgacaaca aagtgggtatt agagtgttac agggttacga agaatacctt taattatcaa 180  
ttataggttt caaatttacc ttggctttta aaggaatagg gtatactgtt tttttcttaa 240  
gtacttgat atttctttct cttttctct ctttgacttt ctgtctctct ctctctgact 300  
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tggcttttcc ttgcctctgc caaccgctt atgtctgtgg tctcttaact actggggcng 480  
ggaaaggggt ctaaaaacca nctggaactg nctatgangg naactggnct gggtgncttg 540  
gg 542

<210> 8931

<211> 536

<212> DNA

<213> Homo sapiens



<400> 8931

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ggatcatcccg ggaggaaggg agactacttc cagaagcagc agcacaaagg gctctgccga 180
gactntgcgg aggggggtcca ggggtactggg ggtggagggg tcccctcttg cagtgtgggg 240
ttactgtttg ggtaaagcga agtcccaggc agtttctgt gcacatttcc acatggcctg 300
catgaggcga gtgaaacca tgtctttggg cttttccagg cctctcatca gccgttgctt 360
catgatggaa acaaattcct tattgctcag ttgccattg ccatcacaag tcaaaagagt 420
gcaaacacca cattacacac cttgggtctga aaactccact ttagcccttg tcctggccac 480
ctgntgcatg ggtaacnttt ntcaananat gctccancct ntggtaaaa cctcaa 536

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<210> 8932

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8932

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gagatggagt ctcactctgc tgcccaggct ggagtgcagt ggcgccatct cggctcactg 60
caacctccgc ctcttaggtt caagcgattc tcctgcctca gcctccccag tagctggggg 120
tacaggcatg cgctaccacg cccggctaatt ttttgtatit ttagtagagg tggggtttctg 180
ccatgttggc caggctggtc tcaaaccct gacctcaggt gatctacca cctcagcctc 240
tcaaagtgtt aggattacag gcatgagcca ccacgcctga cccactgtac gctttttaca 300
agcagcgtgc ttttcttttt ctttttttta aagacagggt ctcactctgt caccagaggt 360
ggagtgcagt ggcatgatca cggctcattg cagcctcaac ttcttggtct caagtgattc 420
tcctgcctca gcctcctgaa tagctgagac cacaggcatg ccccttcaca cctggctaaa 480
tttttaaatt tttgnanaaa tngagtctac tttaatgnnc aggcttggct naaattcn 538

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<210> 8933

<211> 579

<212> DNA

<213> Homo sapiens

<400> 8933

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ctcacttccc tttttatttc ctctaagact tgcaagcagc agcaccagag agggaacctg   60
ccctcctggc cctggaaggg gccgaccccc aaccctaac ccaggacaca gctggcacct  120
caggccccctt tccttctgaa aggagggctg tgtctctctc acattcacac atacacagac  180
acatgcatgt gtgcacactc atggcacatg ggacctcagg ggtagcctgt ttgccgatcc  240
ccccaagagg taccaggagg cagaccgcta gaaggagata agaggcacc cttgtctctc  300
caaccaagg aggaagaaag ctcaaccctt ctaggatagg gactgtcttc agtcaatgga  360
gcgttgactt agggggcggt tttgaaggtt ttttttctc ctttttgcaa gtctttacaa  420
aaatagaact tctcttggtt tttataaatc tacggncatg gctctatgtg cattgtacag  480
gtagaaaagc catatggggc acttcctttg ggtgggtaag gccttgatgg cctgtnatca  540
gtcccttng gcttganaag tctttgcggc acctnaaat                               579
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<210> 8934

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8934

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aaatgggcaa agaacaatca tttattggtt tattttgtct ctactaaaca cattagtcac   60
ttatcattta aataccggac ttcatagaa gccgttgtaa cactttttct ccctcctgcc  120
ataaaaatac agtaagtaat ttgcttaaaa aaaacaacac aacactagga acaagtgttc  180
tggtttcttc tcaactgaact aaagacattt ctcagtgatt tcagtttgta aatcagtaag  240
acagtgcagg ctacaaatca gtgcaggctg aagactgaga ttcaaatgat cttccactta  300
aaagtgctga gctatggaac ctgctctctc tatacctctc catttcctaa catatataca  360
actgaaacca ctgatttata aactattaag tagtgctgaa ttctgtctgc tctattagtt  420
taaataaatg caacttacct ttagcattat attcagaaaa atacttactt aagcctcaan  480
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ggccccaata atttggagtc ctggactaga tacccttcctt agacactttt ggcncaaagta 540  
anccttcctt tagcanggtt ccaaccctg 569

<210> 8935

<211> 576

<212> DNA

<213> Homo sapiens

<400> 8935

gtgttataag atgtgtacac cttcatgggt tattgtgggt ttccttaagt tttatcctta 60  
ttaggatgaa gttcatgcat ttctacacta ctcttaacta aggctcaaga gacaataaaa 120  
acatagaagt aafttttttaa taaaaggaaa taaaataatc aagtactctg agtattttcc 180  
tccattctct tatccagaat ttaaggcct ctgaaaaata atgaaataat aaaaatagtg 240  
gttttgagat ctaaatttat taatatattg gattcctttt ctcagccaaa agctactatc 300  
tgaattaagc ttttcagttt aaaagcctgg aagaccatcc ttagaagaca ttaaaaaatt 360  
acttctgata cacacactcc taataattta gatagatatg aaaacaatct caaatnaaga 420  
tcaaaaaata aagtcctgt aaaaataacc tttggttgct cccaccaca ccgtcatatg 480  
gatgatttaa actgcaatca tgaaatttgg aaaaaatngn ncgatcttat ctnttaaaac 540  
ccttcctcc aaacttgaac ctaaaanggt tcttgn 576

<210> 8936

<211> 572

<212> DNA

<213> Homo sapiens

<400> 8936

gcaaaacaat cagaaaacat ttattatact gaaatgtgta catcctacta ttaaaaaaac 60  
aaagtaacaa atttgctggt gccaaaattt atttagcctg tttcactggg acgaactcac 120  
gttcaatgcc actcagtata atttcaagtc tgataagcat ctaagtattt ttaccccgct 180

tctaaaacct gatgaggaat tcaaaataag cacacagcat taaatgacat ttattgttcc 240  
 ataaatcttg agacccaaaa aggaatgcta aatagacaag caaaactttt aaaacaaacg 300  
 agataaactc acttctttcc ccagtactg gtacagaaaa catgtggtca cacgaaagca 360  
 aagggaaaaa gtcagaaagg aaaactctct gcctataggg atctatagga gttacagata 420  
 ttttcaaadc gatgatgaaa aatagatcgt gcttcttttg agcaaataat taacccccctt 480  
 tatgaataaa ccntaaaatg tcaaaacttta ctactgaag tagttggctt ctggggagag 540  
 attcaactca aaattcccat tncatatttt gg 572

<210> 8937

<211> 569

<212> DNA

<213> Homo sapiens

<400> 8937

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 aacatgtgat taacaggaag gagatgattg gtgagttttc ttcgtaacca ggttcactgt 180  
 ggataggaag ggcctgcctt ccttcccacc atggagatcc taaaatcaca agctccagcc 240  
 tccatcaatg atgacagggt taccagttac ataagcagat tcatcagaag ccaaatacac 300  
 gcagagcatg gctatttctt ctgcagttgc gaatcttccg tcttttgtct cttcaggaaa 360  
 tcattccgtg cctcttcagg atttcctctg gcttgnattc tttctttagt agaatggcgt 420  
 atcaactggt cctgggcaca cacagtttgc acctgatgcc ctgctgggat gaaatctgca 480  
 gccncagatt tgtgagggcc aatcacgnt gccttggttg ggctgtcaca cattgggtcca 540  
 actcctgagg gtggaggaaa ggtcaccaa 569

<210> 8938

<211> 578

<212> DNA

<213> Homo sapiens

<400> 8938

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aagatgaaac agtgttccact cacaaatctc ccagttgccg ttgtgttccc caggcttcac   60
agacagcctg gaaaaactcc tctagggctt gcagacttag ctggaaacta atcctgagca  120
ggaagcttgg cttgaaggga taagagggga ccctccaggt tggcaatcac gccgtttatt  180
cgcacttggc agcaagacaa tggatgatgt gggaggtgcc aggcccctgg gttggcacta  240
atttggagta tggttgagac agggctggag agaggcatct tagaggtggc ccccaaactc  300
gcaatcgga gaaaaaggca agaatcgact agagattgtc aggataaagg gaggcactgc  360
caccctgtct atgtctgtct gccccacag gggcttcttt aatacctggg gttccctggg  420
tgatgaatgg tcctcctacc cttggcaagg ggcctaccct gtcgccngg ccccataggc  480
aaccctgat gaaagagtnt cattccaag ggggcttttg gttctggggn ggncccacct  540
tgtcnggggt aaatggcnct gaaatgctta ctgagccn                               578

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<210> 8939

<211> 539

<212> DNA

<213> Homo sapiens

<400> 8939

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gtgtcatatc catagtntat tttaaaaaac tggntaaaaa ctaaccatac nggtttatta   60
atatacttaa aaagtntgtn ccctatgntg aagtaaaata cattagcaac atcttncgga  120
caccatcttt ataaaagtaa aacttctaga tcctgaaatg tactacagta gagtctatag  180
ttnacacttt taatcacaga ttggaattca ttctccttac tcccctactt cccacatgtg  240
gcagttatta cttcaaaatt aatgacattc actcatgtta tactaccaca gataccttaa  300
tagagtacat actgcataat nactaacaga gccagtcttc tntatttggt gtcacatatt  360
ncatataagc atttgactta aagnacaaat agaaatacta catcccacaa ttgtaaacat  420
tcaccaggag cttccatagt acagtaagtn acagaggngg cccaagagtc agtcaagngg  480
tcttcactcc tggaacttgg tgaaatttgg aaaaccngtt tgnagggaaa tnttcnaag  539

```

<210> 8940

<211> 579

<212> DNA

<213> Homo sapiens

<400> 8940

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ggaggtatgt cctgaacttc catactatta actagacaca gaactgcaca gcaggatgcc 60
tgctgtgtgc attccagata tagtacatag ctcagctctc aaatcagcaa caaagaagat 120
aagcacacca ggtccacata gcagagaact tcacattatc aagtttctat ccaaagcttc 180
aaagaagcaa ataatatattt gaaagactat gtgataaaaag gatcaatttt tagaaagttt 240
catgatctgt catggatcaa tagtttataa aggacactga aacttggatg ttgaggcaat 300
gtcaaattgc cccaagtttc taaatgctta ctcttcattt ctgtacttaa tgtggacttg 360
gatcaaataag ggcatgaacc cacattggtc cntggactgg atttgacta gtattggggt 420
aaagaagttg tcgttactcc tcgaggtagt ctcagatcta atttctcttg gattaattga 480
cactaatact tgaagcncit tacttactac tngagaatct atctactggg tatgctttac 540
gncttagctt tatcaaattt taagntttgn taaaaccnc 579

```

<210> 8941

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8941

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gcttcatgtg aaattttattc ctcaaaaaaa aatcattttt tctaaacgta actcaacatt 60
atagtaatta tgcaagattt tatgcagctt caagagttag ccaagagaaa agttgactct 120
tgcaagaaga tatttttcaat gtctatgcag atcaggtagg taagagttaa gtgcggggga 180
gttggcatca tctaaaagac tgtagaaatt ggaccaaaaa tgtggagttc taaagcagta 240
tctccttatg gcatgccatt atttggagca acaaggttac ctactcgaat cactggatcc 300
tgagttgaca caaaacgcat ctgttgactc agggtttgta taaccacgtg cagtatttac 360

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taggctatcc aattctgggt ccgtacaact tctggggcct gcaaattatt ggagagtgag 420  
tgaagggcaa ccgaaaagat agcataaaag gccccgtntc gaaaggnaac tggcaacatg 480  
cactccacgt ttttagaacc gattcaatng gccccgttg aagccttaat ggaccattca 540  
gaaantnacc ctttggacna ttggaaatnc ccttgcnat a 581

<210> 8942

<211> 497

<212> DNA

<213> Homo sapiens

<400> 8942

cttttctttc tttttttttt tttttttgag acagaatctc actctgtcat cgaggctgga 60  
gtgcagtggc atgatcttga ctactgcaa cctccacttc ccaggttcaa ggaattctcc 120  
tgcctcagcc tccccaatag gtgggattac aggctcccgc caccacacct agctaatttt 180  
tttgaatttt cagtggagac agggtttcac catgttggcc atcctggtct cgaactcctg 240  
acccaagtg attcaccac cttggcctcc caaatgctg ggattacagg ctttgagcca 300  
ttgtgcccaa ccacaagcac gtaagattct gaaggaggat ccaacattta catgaatttt 360  
taagccagaa ttgggcttca agagattttg nccttcctga ggcttggcct ggctacttcc 420  
ccagntacaa anaagtgtg tgtgcctntg cctncacat taggagcagg gtttggaaac 480  
ncccatggtg ncaagaa 497

<210> 8943

<211> 581

<212> DNA

<213> Homo sapiens

<400> 8943

gaaaattcac agcattttat tcaagttaat caatttcatt caataatctg ccatattgtt 60  
cccagcacca ctattactgn gtattatttc tctttgagga agaccaggta ttaagaaac 120

tggtttgaat ttccatgatg cctaactcta tggttaaaaa tccttttcct taccaaaaag 180  
 gaacttctta atcaccagag aaacagaggg aagactgaga tatgtttgca gaaatttatc 240  
 tctactagag acaattcata gttcataatc tttcagggtt gtgctttact tgggggctcc 300  
 gttttcggga gcggtttgtt tcccataaat gtttgcttaa tacaataat ttgccccact 360  
 gtaccacaga aggggaaatg agggctagt tccccagaaa gcaagcaggc agtcctncag 420  
 ggaagaagcc ctaatggctc ctaatgggtga cagagtcatt ctggctnccc agcctgtgag 480  
 ccaatattaa agtttaccta agtggacccg gagangnaat actagccnga taaccangg 540  
 cttanaactt taacngaaat gcctgggggtt tgaataatcn a 581

<210> 8944

<211> 587

<212> DNA

<213> Homo sapiens

<400> 8944

aaagaaggaa ggggtttatt aggccggagg catcagcaag actcctgtct caagagccga 60  
 gccccgccc cgagtgagca attcctgtcc cttttaagga ctgcaagtc taagggggtg 120  
 tgcgtgagag ggtcgtgatc gattgagcaa gcaggaggta cgtgggtacg tgactggggg 180  
 ctgcacgcac cagtaattag attggaacaa aacaggaatg agattttcac aatgcttttc 240  
 tatacaatgt ctgtaatcta tagataacat aaccgattag gtccgggatt gattttcaac 300  
 taccagtccc aggggtgtggc gcccgggctg tctgcttgtg gatttcattt ctgcctttta 360  
 agtttttact ttttctttct ttggaggcag aaattggcat aagacaatat gaaggggttg 420  
 tctcctccct ttattccccc actttgagac tctnactcaa tancnnggag tngttcaagg 480  
 ttactacca tgtcttcttt gctagacaga tcaatagnga ttatatagna cccttgggct 540  
 gatgccattt gggcactaag ganccatnaa cttttatctt tgaanaa 587

<210> 8945

<211> 292

<212> DNA



<213> Homo sapiens

<400> 8945

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aaaataaatt cttttattga gatgagagac ggacacacac tgggagggtt ttgntttttg    60
ttgttgattt ttttgtgact gagtcccagt actcaggagg gctcagactg gaggcggcgg    120
agcaggcagg cggcggcaag gctggccccc tggcgctggg gccgcgcata cttgaggaag    180
actgcggcgc gaccgcggcg gggacctcgg agcgcagcgc gggccatgca cggntcgagg    240
gtgcccagtt cctcggggct gcagnaggga natggnnaaa ctgatgcang nc            292

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<210> 8946

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8946

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cattaaaagt aaatttattg tttgtttaaa aaaaacaaca actgtgcaat atgtgctgnt    60
caagacatgt tttgaatcgc tttgttggtc atctcttctc gggcttcagt ttggcaaggc    120
tgaacatgtc tcccaagccc ttcagcattc ctttcttggc tttcatttta tccttctcct    180
tatctctatc tttcttcttt tcttttccag ttttatcctt ttttctatca gtcttatac    240
ctttctcttg gtttccattc attngnctct ccagagagtg ggaaggctga tcaactggctg    300
tggatacaga ctctctccct gatcttgaac tttcttctgn gtcttcttcc aaggtctcca    360
tgccttcac atcatcatct accgcgggtt tatcataaga tttgtcgatg gcagctctga    420
agctctcatt gcatccctcg cctctgatta tccgcggccg tggaccatgg aaanggaata    480
tnccattca aagnccctcg gnaactgggg gctggagact tttcaaaggg ctngcttttt    540
anaccnnggg agggcccat tttt                                           564

```

<210> 8947

<211> 587

<212> DNA

<213> Homo sapiens

<400> 8947

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gcaagtgggt tctttagctc tacaaatfff taatatatat tataatacag ttaattgaca 60
attacagagc tgcattttctt ggctgggatt taacaagttt aaacaaggta atgaaatgaa 120
gaaaaaaaaa gtctaaatca acttactcta tatgcaatag ctcttcccaa gtattacgaa 180
actagaaagc atcattcatt cccaatccat tgcactaatc catcaatttc tcaatcatca 240
ctcattctta acactcacia tctttctctt cctgntagtc attcattaat ttaataaata 300
tttaatgagt cctcacaatg tgcagggcac aagtagaatn tggaaaacac cgtactgcca 360
aaatagggtca ctaaagtcac taaggnacac taaaggcggg gcgaaangtg gtgttgagaa 420
cagttccaga gcttaatgct ttttgcttgn caagagtatt cttaatccnc agtaggatga 480
cccactggtc tttccagtga aaggttaatg gaaaatgngg caataagncc tnttttctt 540
ttaacaatta gaatgttntt gaaaaaatan gngagactaa aggcccc 587

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<210> 8948

<211> 601

<212> DNA

<213> Homo sapiens

<400> 8948

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gagatggagt cttgctctgt tgcccaggct atagtgcagt ggcatgatct cggctcactg 60
caatctccgc ctcccagggt catgcaattc tctgcctca gcctcccaag tagctgggat 120
tataggcagg cgccactaca ccagataatt tttgtatfff tagtagagat ggggtttcac 180
catgttggcc aggctagtct cgaactcctg acctccagtg atctgcccc cttggcctcc 240
caaagtgctg ggattataga tgtgagccac cgtgccaga catcgacat atatcttaat 300
gaagcaaaaa actcaggggc aagaatagca agcatgatac cacagtaaga aagtaggtcg 360
tgtgtatagt cagatttgta caattactcc tcaaatggaa taggaaaatg aatggaaagg 420
aattgtatta aaatgatctg atcccaaagc tcttgctfff ctgggattaa ggtaatgggt 480
tacaccaaaa cgtctgggtct ctgcactatt ggatctttcc ccattggntt ctaaataatt 540

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gttgcnccgg gactaaatct ctttcaatta atttaatcca aaggaattag gaaaacccaa 600  
t 601

<210> 8949

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8949

gaggcagagt cttgctctgt tgccccggct ggagtgcagt gacacgatct tggctcactg 60  
caacctccac ctcccgggtt caagcaattc tctgactca gcaccaagc agctaggatt 120  
acaggcatgc accagcacgc ccgactaatt tttgtatatt tagtagagac ggagttttgc 180  
catgttgggc aggctgggtt ctaactcccg acatctggtg atctgtctgc ctgggcctcc 240  
caaagtgtg ggattacagg cgtgagccac cttgcccggc aagcagcctc tgatttcaac 300  
tcaagagaca gaagaggatc ccaaattcca agcaactccc aagatgcaaa tcaaaatatg 360  
gaaatgttaa acaaattgaa ggatttccca atagttacct gcaacaccta aaggcactgg 420  
tttccaaatg ggcaagaact ntgcaaacia tatgttggtt gctggtnaaa tcaaggccng 480  
gaccttttta ccggtttaac attttgntt gnccttttg aatttggggg aaactttana 540  
ccccctgttt aacttangga ggcctnaaan t 571

<210> 8950

<211> 567

<212> DNA

<213> Homo sapiens

<400> 8950

gagatggagt ctttctctgt cgggaagaaa gaaagaaaaa gaaaagaaaa gaaaaagaa 60  
aagaaagaga agggaggag ggaattagt accaaaaaga aaatgacatg atcagtgttc 120  
ttttaatcac tcacacctga gaatcaaatt cattaacagt caacttgcgc agaccgtagc 180

aggtttcacc ccagccttag ggagtttatt tttaaagtca cggccttggtg catagttttt 240  
 cctcgaatat gtatttcaca agtccttccc acaccttccc tggtagagaga aagcaattaa 300  
 gactacacaa tggcatgact tacagaaagc aatttatgaa aggtagcctc actaatgttt 360  
 tgcttccagg cttttcgata ggggtgttctt cttagcctgga atgcttggtc ctctncaca 420  
 ttacttccc tttagcctaac taattgctct tctaagtggc tcatcgcatg gatctcatac 480  
 gtcttaaaaa ccttcattag ttctaacac tggatcgga cctttcatgc ttccaagaagc 540  
 atcctgcttt accctacacc agccccc 567

<210> 8951

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8951

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 acaaaaatac aaagctctgg tggatttttt tgtcttttgt cccccccacc accacttcta 120  
 cccaacagcc ccttgccagg gagcccttgg ctgaagcctg gacgctgtcc ctgaggtgac 180  
 cccagggctc aggagaaacg gtggtccagg tctctctggg ggctagcaga gtatgagtag 240  
 gccttgccca ataccaagcg gtcccggagc agcttgaaga aggcatagta gttgctgaag 300  
 aggatgaggg ccagcgagat ggtctggtgc cacttttcag aggacattag ggagtacagc 360  
 tgatagacaa tgacagcgcc ctccagcagc aggaggatgt tgaggatccg cangggtttg 420  
 ctgaaaaaga aatggaaacc ggaagtggga aacctcagaa ggatagccc cgttgtaatg 480  
 gnctacngct ttgtagaccg tcttgctggg cttanacaac acnccctggg gcacatgcat 540  
 tntaancca cgggtgctgg aa 562

<210> 8952

<211> 535

<212> DNA

<213> Homo sapiens

<400> 8952

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gctgtcacat catgtatgta ttttaatttat acaaataac accaaggag gaaaggtaga 60
tgggggagcg gggaagatac attatgattt gaatagtgtg ggtgattctg tccacgctct 120
acatttaatc gacatgatcc agtgtgagca gagatgggag aggtgaatcc actgtttctt 180
cgggcctgtc cacaatgtga gtatctctgt cctgaatgtg gtcctaatat ttcataaagt 240
gtatattcca aattaacata aacctgaaca gaagccaact attcatctg gtgcttaacc 300
aaagaaactg ctacacaatg tttcaaacac aggagaaaac ctggttgta catatgctgt 360
acagtatacc atacttaatt ataatttaac agcaaagtan aattttgacc acacaggact 420
tttgctttta gatagacttt agaatctaac ttttccccct tttaaagctg gactttactg 480
nntatcctct tncacaaacc tttccaaan ggatcntnt tttccacttn agggc 535

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<210> 8953

<211> 513

<212> DNA

<213> Homo sapiens

<400> 8953

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gagacagagt ttcactcttg ttgcctaggc tggagtgcaa tggcatgac tcagctcact 60
gcaacctctg cctcccgggt tcaagtatt ctctgcctc agcctcctta gtagctggga 120
ttacaggcag gcgccaccac gcccggttaa ttttgcgttt ttagtagaga tggggtttct 180
ccatgttggt cagtctggtc tcaaactcct gacctcagn gatccgcca tcttggcctc 240
ccaaagtgtt gagattacag gcgtgagcca ccgtgcccg cctagatttt tttttgctta 300
aagacagggt cttgctctgt tgccaaggct ggagtataag tggccaatc atagctacag 360
tagccttgac tatctgggct caagcaatcc tcctgcctta cctcccaggt agctgggact 420
ataggcatgc accaccaggc ccagctaant ttttttttt ttgnngcgga atttnactnt 480
gnncccaggc tggaatgcan tggcccagct tag 513

```

<210> 8954

<211> 523

<212> DNA

<213> Homo sapiens

<400> 8954

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gagtttttaa atagtcaagc tctcactttt caaatgttgg caaatatttt taaaaattta 60
aatgtgcagg ccaaacaaga ggcacaggga aacaggcagg ccacggcctc tgcagccctg 120
ggaaacgctc tgagtgatgg tgtacaggct atgcagtggg gaaggaagaa ctcagcacag 180
cctccaagga caacttggca gtatctatgg aaattttaca ttcaatagcc ttcgacccag 240
caattccatg tctaggagtt gattcttttg aataatcact tgtgaacaaa acacaggtn 300
aagaatgttc cctgcagtca agtttcagct gggcncantg gtnacacct gtaatcccag 360
cactttggga ggccaaggca ggggcgatca cctgagggtca ggaattcaag accagcctgg 420
gcaacatggc anaactccgc ttactaaaa atccaaaaat taccttggnc ttggtggcnt 480
gncttgnaat cccggttagc cggaaggtn aaccccanaa ttg 523

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<210> 8955

<211> 474

<212> DNA

<213> Homo sapiens

<400> 8955

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cctgtaactg tgtttaaatt ccttatagat gctagatatt agccccttgt cagatgcata 60
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aaaagctctt aaatccaatt tgtccatttt tgcttttggtt acaattgctt ttggtgtctt 180
catcatgaaa tctttgccag ttcctatgtc cagaatggta ttgcctaagt tatcttcagg 240
atttttataa ttttgggttt taactcttta aaccatctta atttttgtnc atagtaaaag 300
gggtccagtt acgatcttct gcatatggcc aaccagttat cccagcacca ttattgaat 360
agggagacct ttccccattg cttggttttn gcaactttgt tgaanacaaa tggctggang 420
gtttgnngnc taatttttgg gctctctatt ctggcccact ggnccctgggg gncc 474

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<210> 8956

<211> 571

<212> DNA

<213> Homo sapiens

<400> 8956

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gctttaaaaa attttgctat tgntataatt ttgatgcaat ggatcaaaat caagatacca 60
aaagaatatg ctacagcaagt ttcagaggtc aatatttcca tttaaatta tattgaaaat 120
taaactagtt gaatcataat tattttatth agcaataaaa tagctacttc ttgaaaaat 180
tacttaaacc tataaacctc ttttaaaaat tgataaatgt tttatgatct tactttactt 240
ttttttcctt aagattctga gtcttgaaag tttatttcaa agaaaagaca atgcctgtgc 300
cacatatttg acttgggtga gtgactagaa actccaagag cgggataaac caaatttggc 360
tagctgaact gtataattht aaaatatttc cttttatctc ttattctggc tttacctgac 420
atgatggcag catgtgagca aggacaattn caacatggcc ctgaaaaagt cagtaagacc 480
aaccagttag cttingnccc cagcttttcc tcatctggaa ccccatcttg gccataaaaa 540
cctggacctt gatgggattt gaaaagccat n 571
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<210> 8957

<211> 507

<212> DNA

<213> Homo sapiens

<400> 8957

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atcaagatag ggtttactg cattgcccac actgggtctca aactcctagc ctcaagcagt 60
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attctggttt tagcaataga cttacgtaag ttggttataa ataccatgag taatttaagt 180
gatagtaaga gaagtaggat agagactata tcaaggtttg agatcctttt gtcatttgta 240
agtgatgatga ctgggcattc acacgtgtga gatgtgcctc cctcaaacct tgttatgacg 300
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tcggcacttt acccatgaaa aaggggttga actgcagact ggaagaaata ggaagccaat 360  
 taaatagatc attgagaaga tcagtagttt gtgcctcttg taaccattta gcttgcttgg 420  
 aaattctttc tngcaagtc tntactttac ccgangngtc natgtaagtg caacaggcct 480  
 gtgagctctg gcaaacttct tgnccan 507

<210> 8958

<211> 584

<212> DNA

<213> Homo sapiens

<400> 8958

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 ccgcctgtct cggcctccca aagtgcctggg attacaggcg tgagccaccg tgcctggcct 120  
 gtgggtgttta tttttctatg ccaggcttat ttcacctaaag ataatgccct ccagttgcat 180  
 tcatgttgcc acaaatagaca ggattttgtt ctttattata acttaatagt attccattat 240  
 atatgtatgt cacattttct ttatccattc atctgttgat ggacacttat gttgattcca 300  
 tatcttggct attgtgaata gtgctgtaat aaacatgggg gtgcaggtaa ggctttgata 360  
 tattgatttt ctttcctttg gacatatatt gaaaaccata tgattaaaat caataaacac 420  
 aatgaaagca tttggcaaaa ttaaacttgc ttacatgaca aaagcctnta aaccaattta 480  
 agtnggaaa acatatgcct taaccacaaa angggcgtaa agacaaccct tcagcttaan 540  
 atcatnctgg acctggnaaa ngggaaaaat ggtnccttga aaat 584

<210> 8959

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8959

cagttgtatg ccaagtgttt aagctttact taaagtaaaa ttagagtatg aaacctattt 60



gacaatatat gaatacaaat ccataaaccc tgaacaaag catatataaa tgctcttacc 120  
aatgcaaaaa cttccatctg ttagatacat aaagagcact tccttaaaag cgacatgtat 180  
tttatactga ccgctgtagt caattttaat caaaaactac acaaataattt tatttgtatt 240  
ttagagacgg ggttttgctc tgttgctcag gctggattcc aactcctgng ctttaagcgat 300  
cctcctgcct cagcctccca agtagctggg actacagatg cacaccactg tgcccagcta 360  
aatattttta tgngattggg ttcaacagtt tatacccaca gttttgatgt gaaactggca 420  
aacctatggg ctgacagcca cagcccatgt agagggatga ctntaagcnc acttaatttt 480  
gnttaaaaaa aaaaaatctn gaccctgnta aaggncaaat ctgaatggaa aatgggggga 540  
tttaatcntc catgggggac 560

<210> 8960

<211> 502

<212> DNA

<213> Homo sapiens

<400> 8960

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gatctaatac tattaatagc cattcagaaa acactttccc tccctcccaa caaccatcca 180  
gggggaaata aaagtcctga aaagaggcca gttcaacatg gcctctaccc tggtagaaac 240  
aaaaagttaa aagagaagaa aacagaaatc aactaagagg tgttgccagt gtctctcagg 300  
agtggggccc tggctgttgc ctgggggtcat gaaaggcaga gcctgcagca tgcagtatgg 360  
cagccgggag accttgcagc cacatcttcc taccgccgca catncacatt ccaacttagg 420  
ngtcatggga atctttcanc anggtcttcc ttcgntgntt ccgctttatg catctgggtc 480  
ttcaagtccc cnttggcata ct 502

<210> 8961

<211> 576

<212> DNA

<213> Homo sapiens

<400> 8961

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gtatttttag tagagacggg gtttcacat gttggccagg atggcttcaa tctcctgacc 60
ttgtgatcca cccaactcag cctcccaaag tgctggtatt acaggtgtga gccaccgtgc 120
ctggccagtc tctgtctgct ttgttaacta ctgaaggctt taaaacttaa aggagaatgt 180
aaactacaaa tgaccaata cttaaagctag ttaacggaag tactgatact ttttattctt 240
ttcagggacc gtttatctaa aaaatgttaa ggcttatgct ttcagatctc agtccaattt 300
ctagaaatta acaatgagtc cttttatagc acttaccttt ctcttcctgc cttccccacc 360
tncaccccaa acttgctttg ggtgttcttt aatctttcaa gggagtata aatgtcacaa 420
actcttaaat aaanggciga aatggcaacc gtatgactgg tttgactggc tttnaagtag 480
tattagnctt ctanaatcta atctaaatct tagaaccgga aaccgangg aactcaatng 540
tccaaaggga agtttnataat aattggattc ttcneg 576
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<210> 8962

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8962

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aaagnntagc aaccctttta tggatgttca atacaatacc cgnatcatc acttatacaa 60
actttctcag tacaattttg ttcacgatca tgataatgct gaatgacaga gtgaggaagt 120
gggattaaca aaaaagtaaa agcttcaga ccagccagag ctaaagtcaa attaaggctc 180
tgctcttgcc agccactcca accttaaaga agttatgtta ttatcatgga taaattttta 240
cacaagattg taaaaattaa acgttaagga taaaagccca caacacgtga ctgatattcc 300
tcaaataatta atttactat ttgtgacccc taaataaatg catcttcag gtgttctgaa 360
cacctagggt atagctgctc agcatgtaag cccctatgat aacttgagcc ctttccctt 420
tccttcccca gtggtgaang gagaatgaca ttccttntcc tggccactgg ctcaaagggt 480
gcttatnggc tatgcacagn tcccccaata nttcctgggt ggagctcnn tttcaagggc 540
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naggccaa

548

<210> 8963

<211> 507

<212> DNA

<213> Homo sapiens

<400> 8963

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gatttaattc ttcagctaaa acagcggaag agnggattta ttatatgggt ggtacacttc 60
gggccccaaat aaacnccaga aatagtcnn gaatgtcaca aggtccaggg cagaggactg 120
aaatttgtgg cgagctgcat ggaaccgttg gttgatccct acttggtacg atgactggta 180
gccagggtg ctagctgatg accccaataa acgcttagtg agtaccggcg aagagcaagg 240
agaggatgtt agagaggagg aggcagtgt gctgggagac agtgagctcc cactggaaga 300
gaggggactg ggcattggga ctggagtctc aatccccaca ggacaccac cattctccac 360
tggtttctct tgggccaatg ccacagattt ttcccgtagg ggcaactggn tttctacatt 420
ggtgcctgca ntcaacttcc tgggagtttg gatctctngg tcacaatggc ccttgggttt 480
tgcattttan tnaaccngaa ttgcagg 507
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<210> 8964

<211> 292

<212> DNA

<213> Homo sapiens

<400> 8964

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cctgagcagt cggncccaac agtgggctta aaatactcag tccactatga tgtaancaga 60
catgctgnca tccaggcttt gttgntccat ttataangcn caggcagagt agattcacca 120
aattctaagg gtcctaggat tatcagaatg ataaangagc actagcttcc acttaaaagt 180
gaccagctgc attatccact aatgagagtt agcntgtcct ttcaaagcag atgttgncn 240
ctntctagtt atgaaagncc tanacggcac cttcttncaa tggaaggctg aa 292
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<210> 8965

<211> 570

<212> DNA

<213> Homo sapiens

<400> 8965

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aagtgttaca aattttatta aaaattaaca tttcaagagg tcatacgtat acaaatacaaa   60
ctgcaaaaaa ttccaggcat aaaaactatt atctgggtta gtgtgccatc tttcttctcc  120
aaatgtcaaa atgtccacaa aaaaagtctt tagaaagtca aatccactgt ccatttgtgt  180
tgggtaagag acctatgtct tcattcactg catggaatcc atgttaaaag aaccctgtct  240
tggttgatata ttatcacagg actcttgat taatccattt ttctcaatt ccccatagta  300
gactgccatc ttgatttctc agtggtaggg tccatttgaa actcttcaag ctgactgggt  360
gtaaatgttt ccaccaatgt ctacttcatt ggatggggcc tttagaggat tcaagtttga  420
ggttcatatt ttgctatat aaaatactga ctttnccaaa gatttccttt atcctctagg  480
ataaaactnc acggtctcag cttcaaaatg gcataacctca aatnaaagac ccattattgg  540
tcagaaccaa ccgnacccaa tttatTTTTN                                     570

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<210> 8966

<211> 464

<212> DNA

<213> Homo sapiens

<400> 8966

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gagaaccaga atgcttatat tttattagta tccaagactg gggagaggga tggggtggga   60
gagatcaaga attggggagc agatggggagg cgctacctca ctcaggagac acgagttctt  120
atccaagttc aaggtgaaag aagtgagggc aggaagagaa atctccctgc tagcaacagc  180
gactcaggga gaaactctgg gcccatagct agctggaggc agggtgacat tgctcccacc  240
aatgggcat cttcttagct acaccttTgt agctgtgggtg ccaggcagaa gaaccacctg  300

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gaaactgagc taaggcaggt tccttcttcc aacagaagac acagctgggc agggactgtg 360  
cagactcaac agggccaggc cagctagtgg ccnagtcagn gttcatgtct ctcaccantg 420  
cctggagggt ccccaaccna ggaaagaact ggncantnct gccca 464

<210> 8967

<211> 440

<212> DNA

<213> Homo sapiens

<400> 8967

gagtaatgcc gactttatat cagcacaccc agtgccccc cgttcccgtt ggcccaggtc 60  
ccggagacca tgatggcacc cacagtggac ttcgcaaagg agcgtgggga ccccgaggc 120  
caggccaccc ctcanatggg ggtcccatgc taaagcagac ggtgccggtg ccgcagggcg 180  
tntgagaccc acggtggagc ctgggcctgg cgtgcgggag gcggccacga cggcgccttt 240  
ctcccaggaa ctccgggagg gaccccagga ctnagcgcca gggcagcctt ggcaggtgca 300  
gtgaggcant gacttgtggg ggtagatgt gggcctgccc cacgtgggca gggatcagcc 360  
aggcatgggg gtncancggg atccnantgg ggcacannca ccatgttttc gnaccattac 420  
caaagcccca ttgttttaag 440

<210> 8968

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8968

cagttgacac ctgggtcagg tgctctatta aagagtcatt aaaatcatgt ggccagggaa 60  
caaatacagt cttcgaatgt gacgattcaa gcttctcat tgctgaacat gtttaggcag 120  
gtacaggcat ccttaggtgt ccacgtattt gggacatgta agtggagagg catgaacctg 180  
attcatttcc tgatccagtg atgctcccag cccaccccca aacagacaca gcgtagcccg 240

ggccagctct taaggagttc aggagtgaga agaggccctc agagatctga cagaacaagt 300  
 cttacgtagt ggccctgtaaa ccttcccaga aaaagggctn ttaacaattt cacctgggtn 360  
 ctgnacactt tggacagaag tcctttaggg ttccagactg gnttgctctt tggtgacct 420  
 tnaattccct ttccangact tcgaccantc ccctaaaccc agagcatttt tttccctnat 480  
 nttttngggc ttgtcctggt taancctttg ttgggaggct gaactgggac ttttggggaa 540  
 cctgancctt taaaggangg gtttt 565

<210> 8969

<211> 357

<212> DNA

<213> Homo sapiens

<400> 8969

gctagcaggg gattgggcca gacaaccctt gaagccatgt ccctctcttt gattctatga 60  
 aatggcagca cagtcaccta cagacatntg accttaaaca ctggcccatn tgcaatgcc 120  
 cggctgagtt tcccaaccac aggtaaaggc cccacccaaa agccaaattc tttcagtcaa 180  
 agctcaaaaa tttcagccca gcaattggat ccctgtgaag gctacgtaat aagcatagac 240  
 aaaaacgtaa aatcaaaaaga aaggtttgga aatgaaagtt taaatatggn aactgaagtc 300  
 caaccnatgg natnatntac cccacccctt ttttcncat aaatnggatt caaaatg 357

<210> 8970

<211> 489

<212> DNA

<213> Homo sapiens

<400> 8970

gccattaagg gccttttatt cgtattcatc acatcggana tcattctctt ctaggaagct 60  
 tttaaaaaat ccccaggttg gattagggca ctccctctgg gtccctggca atttctcca 120  
 ggtagggat cccaaggggt cgctgccttc ctgggtctct ggccctggccc ttggggcaca 180

cagtcatnaa naantgctgg ggggaagtga gctctttatt tanacatagc tctgctgagt 240  
 ggaaagtggg caccagcccc attaatgctt gctggctggg ggcttccaag cacgccccac 300  
 tgccaaggct canctctgca gttcttgga gttattgcgac cgaaggcgca natgcaagct 360  
 gactcagcag gcacagtga nctcgccagg ctccactgag agtccacgta ctgnccaatc 420  
 atangcccca ccttgnccac gccaaccaan gcggaaccgc ggntgaagcc ggtttcctgn 480  
 nagccaaaa 489

<210> 8971

<211> 410

<212> DNA

<213> Homo sapiens

<400> 8971

gcacagattt cttttcttct ccaccttctt gatccttctt ggctttggaa gtcttggctt 60  
 gggcagagaa ggtaagggtg agtttggcga aaagttcatt gttctcaaag cggtcctcct 120  
 tcacctttgt ccagaagcag tcctgggaga ggtcctcagc cacaagcttg gaccagtttg 180  
 gcctccggag ctgcacctct ggcttataaa gctttttggg ggtaaatcca aatggcagaa 240  
 ctggggctgc aggaactcca aatccaaatg ggggaggttg aggcataccc attccgggtg 300  
 gaggtggagg aatgccaggg cctccgggaa atggaggagg tggagggatt ccaggaccac 360  
 caggaagagg gggaggagga ggtggcnttc ctgcttntnc anncnangga 410

<210> 8972

<211> 386

<212> DNA

<213> Homo sapiens

<400> 8972

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 cctgtcacc agactggagt gcaatggcgc gctctcggct cattgcaacc tccgcctcct 120

gggttcaagc aattcctgtg cctcagcctc ccaagtcattg gggatcacag gcatatgcc 180  
ccacacctgg ctcatTTTTA tATTTTTAGT agagataagg tttcgctacg ttggccaggc 240  
tgctctcaaa ctcttggtt caagtgatcc acccctctca gcctcccaaa gtgctgggat 300  
tgcagagcca tcatgcccc cctaaaaaaaa cgggtattaa atggaaagnc aagtttaa 360  
gttccngncn cnatggctna ngcctg 386

<210> 8973

<211> 496

<212> DNA

<213> Homo sapiens

<400> 8973

gagacagagt ctccgttgcc caggctggag tgcagtgtcc gtgatcttgg ctcaactgca 60  
acctccacct ctccaggttta agtgattctc atgcctcagc ctccctaagta gctgggacta 120  
caggcacgca ccaccacgct cggctaattt ttgtatTTTT agtagagaca ggTTTTcacc 180  
atgttgGCCA ggctggTTTT aaactcctgg cctcaagtga tccacctgcc tcggcctccc 240  
aaagtgctgg gattacaggc atgagccacc atgcctggcc tttcatccat ctttaaACAA 300  
attcaatgac catctagaga cagatgtgac caaagtgtta caaatttcta tgcattttct 360  
atgaattgct ctgtgcagtt cacacatggg ttcatcacc ccgcaggctg tgaacttcct 420  
tatnctgnan gctgcaggnc ttaagnttca ncaactcncg aacaaaaaga cttaaagggg 480  
gacttggtta aaataa 496

<210> 8974

<211> 583

<212> DNA

<213> Homo sapiens

<400> 8974

gttgtcattg ctttattact catagtttcc aagcaatatt acatatataa aagtcatttt 60



aaaaacaacc aggtttgcta gaaaagtgtt ttttcttgga atcatggatt tctacaccat 120  
 tcatacctgg agtcctttat attaaatata ttatttacgc aggcactagg caaaattgaa 180  
 gaagttttga gttatctcct ccataacccc caccttccca cattcccaca aaaaaatccc 240  
 accctttccc tattatatgg gttattaaca ttaaaaacaa taggaaaata cacaggcatt 300  
 tcaatttgaa tcacttttcc ctatttttac atgtctggag atgttggctt ggttatgaat 360  
 tcaaaagttc tcccagagtt ctgatgatg attcatagag aaatctttca atgctatcct 420  
 ctcccaaagt aatttccatg aatgncttta gttttctgtg aacagtggct gnaaccttcc 480  
 ttacttttgg cttttatggt acccgcttta taaccggat tattntgccc gcanccgga 540  
 gggcacaagg ccttaaaatc nttttnagcc cccatngcct ttn 583

<210> 8975

<211> 349

<212> DNA

<213> Homo sapiens

<400> 8975

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 aaagcagatt cgaacataac aactggatgat tggctcatct cacaggctca catcatcagt 120  
 gtgttaacta acatacaata ggactgtacc cttttacagg attgagtgtt ttggatccca 180  
 ctcacacact aaaaccctgc cataaagttg tatcaattag ggctgttcaa atgtgaaact 240  
 gtattggaaa atgggaaact ttatctcctt atatatgtat attttttgag atggcgtnn 300  
 gcnccttngc ccatgctgga ntgaagtggc nctatcctgg gtcactgna 349

<210> 8976

<211> 563

<212> DNA

<213> Homo sapiens

<400> 8976

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 cangtccac atcctgggct catgccattc tcctgcctca gcctcccaag tagctgggac 120  
 tacaggcatc cactaccact cccggctaac tttttgtatt tttagtagag acgggggtgac 180  
 cgtgttacc caggatgggtc cgatctcctg acctcgtgat ccacctgcct cggcctccca 240  
 aagtactggg attacaggag tgagcaacag cgcccggcct cctttgccac ttttaattaa 300  
 gttctagaca aaggactcac agactaccag attattttta gaatatttga ttataatcta 360  
 gaaataggta tgttctgaaa aagtactact gatacagaaa aggtagtttt atagatggat 420  
 ggattttaat ttggagtatt atgagttggt tcagaagaat ttaagaaagg cagtctcaca 480  
 aaacncacca aattttattg agggaaaaga ctttgcataa aattaatttt gaattttgnc 540  
 cngccatttc attccactga ttt 563

<210> 8977

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8977

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 taatgtctta catccttaat aggcatgatt agatttctcc caaattttcc aaattaactt 120  
 tctttcaatg taaccaaacc aaaaccatgg catcacagtaa actaaaagg tagacaggag 180  
 agaaagggtg ctgcaattac agaaaattta gaaatcagcc tttaccagtt acatctgaga 240  
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 gccgggcatg gtggctcata cctgtaatcc tagcactttg ggaggccaag gcgggcagat 360  
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 aaaaatacaa aaaattagct gggcgcgga ntgtgtgcct gtagttncag ctactcgga 480  
 agctnangca ggaaaattgc ttggancccg gaaggcaaag gttcaatgag cccaaatcgn 540  
 nccatgga 548

<210> 8978

<211> 517

<212> DNA

<213> Homo sapiens

<400> 8978

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gnnagttgat gtccacttag aaagcaggtg ntgttacaaa aatggngtta attatataaa   60
tggnccttgc acagcatgtg ggttcatatc aagctggcac ctctgccaaa aaatgaagtt  120
gcttaagtaa tgggtgcaga agtccataag caccctcgct cctggaacat taaccactct  180
gagatcctca ggggaaaggc agtctataaa tacgaagctt tacggttacc cttagttact  240
tcacttttca gagcataatg caatctgtcc caagtcccat gttttatttc tgtagtggat  300
tctgctgtcc tattttatat attgnatata atgcattatg ttgctctagt aatttttttg  360
aagatatgtt tccactatta tttttacttg tcttgaaaaa tggaaatagg cggtaatgga  420
aaggaaggcc tgctggcaga atccttattt aatttgcaca gtagaaagtt gncttatgng  480
nctgctactg gtcanggatn ccaactcgtn gaagana                               517

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<210> 8979

<211> 564

<212> DNA

<213> Homo sapiens

<400> 8979

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gagaggggag tctcgctcta ttgcttaggc tggaatgcag tgggtgccga tcttggttca   60
ctgcaacctc cacctcccgg gttcaagcaa ttctcctgct ttggcctcct gagtagctgg  120
gattacaggc acatgcacca accctggcta atttttctgt attttttagta gagacagggt  180
ttcaccatgt tggccaggct ggtctcgaac tctgacctc aagtgatcca cccacctcag  240
cctcccaaag tgctgggatt acagggtgta gccactgcac tggcctaaga ttttcatttt  300
aacagggaac tgttagaaca gaaaagaagc ttcccaagag gcactcattt taaaaataaa  360
ttatagctta aattattact atgtggatta tatcagcaaa ggcagaaaga attaatgttt  420
tcctcctttc atgaaccttg taaggctagt gttgagtggc ttacaaatgt catataatgg  480

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actgtaaadc atctgccata ttgatcaadc atgttaattt aaggttttct taacattaga 540  
gatttttaac ggggagnta aaat 564

<210> 8980

<211> 560

<212> DNA

<213> Homo sapiens

<400> 8980

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caggtgccca ccaccacgcc cagctaattg ttgtatTTTT agtagagacg gggtttcacc 180  
gtgaccgcc tcggcctccc aaagcgctgg gattacaggc gtgagccact gcgcccggcc 240  
aggatattct tttttgacca atattagtta atctaattgg cacagttagc attaatgtgg 300  
caatgtacag tgcgcagtgg ttcatggaag agggaaattg gggatgtaa tgtaagtga 360  
cccttaagac tatcaaaaca caatccctta tgtctcctcc atctagatct tannaataat 420  
ttnattcatt tcatttctga attgggtct gacctgggtc ttaattgcgt cagataaaca 480  
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<210> 8981

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8981

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tataggcacc tactaccacg cctggctaatt tttttgtatt tttagtagag acggggtttc 180

accatgttag ccaggatggt ctccatctcc tgaccttggtg atccaccac ctcggcttcc 240  
cccagctaatt tttttatatt ttagtagaga caaggtttcg ccatgttggc caggctggtc 300  
ttgaactcct gacctcaggt gatccgtctg ctttggcctc ccaaagtgt gggattagaa 360  
gcgtgagcca ccacgcccag cttttttttg tttttttagt agagatgggg tttcgccatg 420  
ttggccaggc tgggtctcaaa ctcttgacct tangtgatct ggccacctta nccttccaaa 480  
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<210> 8982

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8982

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ctcttaattc ttaatggggc caaataatcc ttccctccg aaatataaaa ccaggacaag 180  
agaaaaatgt gagttctctc accacctatt cccactacct tccccctca gaggccaagt 240  
ttggctgcat gtgatgatcc ctgctgctct gtgctgttcc tcacccatct ccaactgaccc 300  
aacagaaggt ggcgctatta atattatgcc tcctctgaca cctgctacct gtcgattagc 360  
agaggatgtt taccctctg cccttgaaat caaatgtcat ttgtctgatt acatagaggc 420  
tatgtgagaa tgtttttcaa gaagtctaag aggaaagtga cttttaaacc tggaatgnc 480  
ttgagtcatg gggtaaattg ttctttaatc ctattcacn catcttgnt ctttncctta 540  
aatttncnca aaatt 555

<210> 8983

<211> 555

<212> DNA

<213> Homo sapiens

<400> 8983

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gacatttttt gctttattaa acatcattca ctgagaattt ccaaagcact gcgtggtgcc 60
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gcgcacggct ccttctccct gggaaggcag ctccactggt gaaaggccac tgaccaagtc 180
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aagaaggcca tggactgggc tggcctttcc tgggaaaggg ggaaggagga agaactgggg 420
cctancaggg ccgtctatac cctggagagg caggcctgac ttcttcctta gagcttgcac 480
naagaggagg ctcananaa agagacttgc atnaanaaca cttcagncag ccgatntcca 540
ctcagtattt ctttt                                     555

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<210> 8984

<211> 500

<212> DNA

<213> Homo sapiens

<400> 8984

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gttcagcttt tactggaaac tgctgtctag gaccacctgc cctaaccagg aataaaggca 60
agacagcctg gagaccagtt tgttttctca gctgcaaaca gctgcctggg caggcagggtg 120
acacaaggcc tctgtcccca gggatgggag agggcagagg tggcggctgg gtgagttgcc 180
ggcctcagct gggggcctgg gggaggccct tcttcagcag agatgtgagg aagctcccca 240
gctcctcgtc ctggtaggtc caggagacca gcagcacctt ggtgcctggg tcctcagaag 300
gggcggcggc ctggaggagg acggactcca cagtcacaga gccgtctggg aggtgctgca 360
cacagtggtc cttcaggacg ctcttgaggt ggctgtagac gcgcaatgcc gtctcctgct 420
ccttgctgtg gtcattgcaag tgcacgccgc angtgaaacc caactggtgc ttnanncaga 480
cccanntttt tnaggccttt                                     500

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<210> 8985

<211> 537

<212> DNA

<213> Homo sapiens

<400> 8985

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gagatggagt ttgctcttg ttgcccaggc tggagagcaa cggcgtgac ttggctcacc 60
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ttactggcat gtgccaccac gcctggctaa ttttgtatit ttagtggaga cggggcttcc 180
ccatgttggc caggctgggc tcaaactcca gacctcaggt gatccactgc ctiggcctcc 240
caaagtgcct ggattacagg cgtgaggcac cgtgcccggc ataagcttta ttttcaccag 300
gtaaatactt aagtacaaat gatagaaggc cgggggggtg agtaagacct aagggttaga 360
gtcatcaaaa ataatatcag cattaaccag tgaccccaat ttactgnctt cctacatcac 420
aacatcatgt cagctttaag atgaaattaa accnagttaa nctagggcgt ntgnittctaa 480
gggagcnctt taaaattaat gganggggaat tcccacgggg tttttggttt ccccntt 537

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<210> 8986

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8986

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gttttattca gttatcacct ccagctttgt acttcagcag ctgactttcc ttcttcactg 60
gggagcaaat ctgcacttgc cttaaataaa tttctatit ttgactacttt tcaaatttat 120
cacatttttt tcctaaagta ccgagaacta acctatctt gtatttcttg cagcttccca 180
atgctgaggg agtcttagag gcatttgctt tgtttttatt aggagtatgg tttatagtca 240
cccagccaga atgtgatata caagggttta caaggaaaag tagaaatggg tgtagatgta 300
tgtgcttggt gtaagaaaaa ttacactta cagatgaaag atccatatat aatccagcca 360
cataccatgg aaaggaaaaa caagaagaat atgtaatagt gatggttgcc aaaacctatg 420
caccgtccag tccacaggca gtgttgatca tatcgagccc acagcagttg catacatggc 480

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antggagtga ccctaanggn tttcctatct aaaaggggca tttaaaaaag gccttaccca 540  
aaacccng 548

<210> 8987

<211> 525

<212> DNA

<213> Homo sapiens

<400> 8987

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tttctgtctc tatggaaaat gcaaaacagt actacagaaa tacacaatgc actgtaagca 120  
gcggtttgct gtagtggtcc aacaggtaca agcaaacatt ttggctcagc taggcagtaa 180  
tccacttaaa ccacatcccg gggctacggc cgaccaacc acagctcctg tgggatcaaa 240  
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aaaggacaga gtcattgaggc agaagtttcc caaccagatc tagaatcact gggaccactt 360  
ccttcctttc ccttctacca acctagagac ttggactatg gtttcaaagt gaaattggca 420  
tttctagcaa tgaataccca cagccctcac ttcttttaaat atcaacagag aggntccttn 480  
caccaaggnt cattgntccc tcccagattg gnaaaaggna acct 525

<210> 8988

<211> 527

<212> DNA

<213> Homo sapiens

<400> 8988

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acacacagca nggagagcca cagagggtta cgaccgacgc gggctctgaca gcacaggccc 120  
aggcaggcgt ggactcggga gccgagggtg gtcggatggc agcgtgagcg ccagtatcat 180  
ttccagcatt tccatnttta ccaactccagt cactctnttc aaaaagaaag aactagagca 240



aaaccaaagt taaatatctc aacgagaagg gacacctcac gtcgctgaca gctcggcacg 300  
 tggctgtgcc caggcccccag agatactgcg tagtgaactg gccgctggaa cgcagtcaca 360  
 ggcctctgng ctgcagccca cctnccagca agccacgcan agccccgggn cttgagtcca 420  
 aaaatgcccc aggggaatgtg ggacnggacg ggcccccana aggtgganaa gnaagccggc 480  
 cccaagcccc gaaanttccc acgccaaggn ggggnaaccg gttttct 527

<210> 8989

<211> 548

<212> DNA

<213> Homo sapiens

<400> 8989

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 aaattacact caggacccat aactcttcct cattataagc atatgtagtg attcattcat 180  
 gcagggttttt atatgtagat aggatttttt tticcttttc aagaattcca ttgtagccat 240  
 gagatgaaaa atgtattatg gtaatggtat agctttcttc tattttgctt ttagtgttag 300  
 gtttgctaaa agcttattta aaattcccaa ctgacataat gtgttttcaa taaggaggac 360  
 gctgccgtgt ccaataccct tcccctgtca ttgttcggta ccatatctcc tggcttcctt 420  
 ctacatgggt cacttaagtt aagagggagg ccaaggaag ttcccgattt cangcagtgt 480  
 gtggcagggn tacctggcct aacaacctgg ctactcctnc tgggaccgtt ctcaaangng 540  
 gcataatg 548

<210> 8990

<211> 541

<212> DNA

<213> Homo sapiens

<400> 8990

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 ccacagggcat gcccctccac acctggctaa tttttaaaatt tttttagag atggagtctc 180  
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 cctgagtagc tggaccaag ggcgcttgcc accactccca gctaagtact tttcatatta 300  
 aaaaaaaga agaagaaaaa agaaaaaac caactccact tctaatttca caacagaaaa 360  
 attcttctag tgctattact ctacttaatt caatcctggg gttgttgntt ttttaaatca 420  
 gaaacatgaa tctgtccaac actttttctt aattggctcc ttcccctaca gaacacttag 480  
 gtagcgagct gcaggaaact ggctttgncc tggggtgggc actatggctt tggccacttt 540  
 a 541

<210> 8991

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8991

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 ttcaaaccgt aattctcaaa tactgtgcaa cattcaacca gctaaggatt tcacgtgact 120  
 ttcaggaaat aaatgacca caattacca gtgaattcca ttagtgta agaataattg 180  
 caggtaactt ctcatgtaa ttaccatgaa attgagtata atttagagaa taaaatcagg 240  
 aacatactcc taattgcttt ttgatccat taagcatcat tctcaatctc tcactaaatg 300  
 cttgggtgcc tcaaactagt ttttgnttat aggctagatt ttaaaacact gntttattat 360  
 aactctgtta atgtatctct acatagcact tttaaggcag atgtgaagag atcaactgga 420  
 ataagctgcc aaccatttat atacnatata aatattttgg ccaagaatgc agntttacca 480  
 gcttaagcct gggctntaaa cccatcaacn tttctatgat aanccaggga cttttaaggg 540  
 gttctaataca ggtttaccta tn 562

<210> 8992

<211> 565

<212> DNA

<213> Homo sapiens

<400> 8992

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ctgtaccact ttttagcagca gatgaaagag tttcttttcc tgcaattgag acagcactgg   60
tatgacttgg ttttctgttt gcaccacttc cattggttat acaggacatg ggaataactg  120
ctcgagggct tggttggcct ttacttgaga ctgatttttt cactgaggcc acatgatctt  180
cagagattgc aagacgcctc aaaacatcag ccaaagccgc ctttagcaca gtgatttcat  240
cttcttggtg ctgaactcgt gactcaagag ctgacaggcg atcttgaaca tcagaagtac  300
ttgcagcaga aatactatca tcgagactgc cggcgaaacc gtcgagttgc acacaagaaa  360
ttaagggact gttcctcatt atgacttaga aaaggcagca cctctctagt agactaagag  420
catgtctgga catccactgg tagtggttaag aaaacnggan tttttaaga agcacaccat  480
tggacttggc aaactgaagt tttcttaatt aaaaattttc attnccattt gggtgaaang  540
gtttttaata gagtcnnttt ttttg                                           565

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<210> 8993

<211> 577

<212> DNA

<213> Homo sapiens

<400> 8993

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gtgcctctag tgcttgctgt tttgcataaa tatactctag cttcttcagg accacttctt   60
ctgtcttacc tgaaagagac gatactttcc gtatcagaat attccgtttt cgagtcagga  120
gatttttctg tcctatcaat ttgtctgcct gatctgtag tccctgaatt tcaactgaagg  180
ctcgagtaag aatgagactt ttggaaacct tggaagaatg aagtaatccc aatgtgatct  240
ttaatttctc aaagagatcc ctcatctcac cagccgccg ccgctcattg gcagtgtgtg  300
tccggcgata ataagcaaac gcttctgctt ctttctgtag tttgtcactc cagtaatcag  360
gcttcagttt tagaggaatt ggtggagcct ttcgactcct ttcagctgct ttttcatctg  420

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cagagatgtg agtacaggac ggctggttga atgactgtgt gtgggcccgc tgtggnccttc 480  
 angatgaagta ccattaattt cctctggaga gctcttntac aggcttaatg nccacgggct 540  
 nctcatcacc ctcaaggant ctaccccggt attcttt 577

<210> 8994

<211> 500

<212> DNA

<213> Homo sapiens

<400> 8994

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 ttacaggcgt gcaccaccac gcctggctaa ttttgtatit ttagtagaga caggatttca 180  
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 ttttttttg acacggagtc tccctctgtc acccaagctg gagtgcagng gcaccatctc 360  
 ggctcactgc aaccgccaca tcctgggttc aagcaattct tctgcctcag cctcccaagt 420  
 agctgggact acaggcgca gccaccatgc ctggctaaan tttggatttt tgggagaaac 480  
 angngnnan cctattggcc 500

<210> 8995

<211> 543

<212> DNA

<213> Homo sapiens

<400> 8995

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 gctctaggat aaatatggcc aactgaccac caatccattc caatctttaa ataccctgag 180

aattgattat ataatcttcc ctccaaatct gctcttcctc tatttaccta tcttggttgt 240  
 catccacagt cacacaaaaa caacttgga gccaactgag ctcttccttc accctctgca 300  
 tggccctcca tcaaatttat tgtgaagtcc ttagaaattc tgtttcttcc ttcacttcca 360  
 tccccactgc ctgtttgttc ctcatcatgg tgcatgaact cctgtcagaa ccttgtaact 420  
 gacttccta catcctttta acatgnggat atcttcctaa agttcaacta ctaatcttcc 480  
 tttcaangna ccaacactgg ctttatggat agnatctaaa ctncntggna agggaatcaa 540  
 agc 543

<210> 8996

<211> 562

<212> DNA

<213> Homo sapiens

<400> 8996

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 ttttaggaata aataaaaaga ggccggggcac ggtggctcac acctgtaatc ccagcacttt 180  
 gggaggccga ggtgggcgga tcacgaggtc aggagtctgt gactagcctg gccaacatag 240  
 tgaatcaccg tctctaccaa caatacaaaa aaattacctg ggcgatgatg cgggcgcctg 300  
 taatcccagc tactcgggag gctgaggcag gagaatcgct tgaaccagg aggcagaggt 360  
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 tgtcaaaaaa aaaagaaaga aagaaagaaa gaggattaaa attnccctta ngntggacc 480  
 ctttgatcaa gccgatgct taacgggtgg tggtgactga cagggggttn aangggcccg 540  
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<210> 8997

<211> 556

<212> DNA

<213> Homo sapiens

<400> 8997

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tggggcatgt gatggtaggc cagacccttt ccaagggaat actactacac taagcctaca 180
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cactgngtca gaattctaag gccagcatg atcaggatgt aaggctccat aattttctaa 300
accagaaatt atgagaagaa caaaattctg caatcactta tgnntttttc ttcttttttt 360
ttttgagac agagtttcac ccttggtgcc caggctggan tgcaatggcc aatcttcggt 420
tactggaacc ttcggcttct ggggtcaacc aattttctgn ccaanctcct gagtaactgg 480
gaatacaggc atgtgcccc acgcccagtt aatttggat tttaggaaaa aaggggggtc 540
tccaggtttg caggcg 556
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<210> 8998

<211> 568

<212> DNA

<213> Homo sapiens

<400> 8998

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aactctttgc cctctagcac atagccatct gctcgccac actgtcccgg cttgaagcg 120
atgcacgcaa gaagcttgcc ctgctggaac tgctcctcca ggagactgct gattttggca 180
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gactcgtacc actgtcggta cgggtgtgct ncgatgagca cgatgcaatt cttcaccagg 360
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ttacgagtcc acacttttga gccccaggag aaatttccca cgtccaacct canggcacng 480
gatttcttgg taccctnccc ggacacggct ggggtggatcc cgccgggggc caacttgggg 540
gtngcaactt gggcgcccc aacttaaa 568
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<210> 8999

<211> 538

<212> DNA

<213> Homo sapiens

<400> 8999

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gatcgtaaac tttattactt ttctatttgt tgtcctaatac atgtaatgca ggggttgaga 60
gttcctttac tgttttgcaa ctcccttttt tttttttttt tttgaggcag agtctcactc 120
tgtcaccag gctggagcgt agtggctcga tctcggtcga ctgcaacctc cgcctcttgg 180
attcaagcag ttctcatacc tcagcttccc aagtagctgg gattacaggc atgtaccagt 240
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tttctctnct gggaagacca gcgaacatnc cctgggttgg anggcctnca gctnttticaa 480
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<210> 9000

<211> 560

<212> DNA

<213> Homo sapiens

<400> 9000

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aaacaaacaa aaaagaagtt tactaaattt aaacactgac atcctgtgaa gatgccagtc 60
tttacaggcg tttgtaaaag tagactgtgg ggagtatggt acactaatac aaagttttac 120
aatgaatac aagtgaata tataaattac aatgaaatag aggaagattg tggctctgtc 180
ctgggttggg tcttttagca gtcattatgc tgtagagaaa ataaaatacc attaggctat 240
aatcaggata aataacgatg acattttagt cctttaagtt cctattttta gcaaacataa 300
acagactgat cttagcttca gcaaagctta ggccaacat acttagggct tggacaatgc 360

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tcacaaaatg tttcctaaac aaaccagat cccttgtctt ccatgagtaa aggctgcaga 420  
aagggcccat agaaactgca ggatctgatg gtggggttgc tttgagtga tttgtgtggg 480  
ggtttaatct tagggattaa aagatatggc ntggaagntt cacactggta tgaactcaag 540  
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<210> 9001

<211> 565

<212> DNA

<213> Homo sapiens

<400> 9001

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aggtgttaaa gtaatgcaca gaaaataaaa atagcagcca cataaatctg cacggcattg 120  
cattcaagca aaggacaata tgagtaactt agagaaatag ccacattcaa tgcacttaat 180  
gaaatcctgt tttctttgga gttacatgag gcagcagtac tagctagtgt ctgatattgc 240  
acttttatag cataaacaca gctaaacata gtgttaaaca ctgacagcat cagtacctgt 300  
tctaattgca tcagtgttta cctctcagtc tagcatgctg actatagtcc tatgctttaa 360  
aaggttataa ttatttgaca gttaaggcat tagaggaaaa aggtttaagg ctatcataat 420  
atatataagc attcacttct ggtcaagtta gtgtattggg ttctagaata cactggttca 480  
aatggctcac ttctgggata ttaaaaacta tgggaattct cttattaaag tccaaccatc 540  
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<210> 9002

<211> 561

<212> DNA

<213> Homo sapiens

<400> 9002

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 ggataaaggg aggcactgcc caccctgct atgtctgtct gccccacag gggcttcttt 240  
 aatacctggg gttccctggg tgatgaatgt cctcctaccc tggcaagggg ccatacctgt 300  
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 gnaagtcacc agggggctcc ggaaggtcac cctgacgtg gaaggcctga natcctgagg 480  
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<210> 9003

<211> 565

<212> DNA

<213> Homo sapiens

<400> 9003

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 atgagatacg ggaggctggt gtggagggct cgggtcactg gtgactcgcc aaaaaaaaaa 180  
 tatattgact atgaggcaag ggatacacca agacaacagc cttccatcac tgtttgcaca 240  
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 ggctatgcat tgcccaactc caccaatctt aggaatctcc atcatcttac catncattac 480  
 ccaagggatg ggagctggtt atctccatcc aacttaattt ctgntaataa tcctcatttt 540  
 cacttccaag naanctgatg ggagg 565

<210> 9004

<211> 538

<212> DNA

<213> Homo sapiens

<400> 9004

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tagctgggac cacaggcaca cttcaccatg cccagctttt taaaacatat tttttgtgaa  180
gatgcggtct cattatgttg gccaggctgg tctcaaactg ccggactcaa gtgattctcc  240
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tctttttttt ctgagatgga gtctcactct atcgcccaag cctggagtgc agtggtgtga  360
tctcagctca ctgcaacctc cacctcctgg gttcaagcga ttctcctgcc tcagcatccc  420
cagtagctgg aattacaggc acacaccacc atgcccggnt attttctgga tttttaagta  480
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<210> 9005

<211> 553

<212> DNA

<213> Homo sapiens

<400> 9005

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ccagccagct gatccttttt tttaacctat ctatgctttt gcttgcatag ccacttaaca  180
tttctagttg atcatctttg gtgaaaacta caaaaacaaa ggagaaaagg gcagattgaa  240
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attcgcatth ttggtgataat taactctctg tagaaaattt tggaaatcta attaattagt  360
accttcaata ccttttagttg tctccacac acgcgtgtgt gtgtgaaatc ttctacaata  420
tcttcccttt tttagaccat gttcactgtc aaaaangtgc ttttaagagca gtctttggct  480
gggcacggtg gctcacacct gnaatcccag cctttgggan ggcnaggcag cggatcacga  540

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aggtcaggaa aca

553

<210> 9006

<211> 560

<212> DNA

<213> Homo sapiens

<400> 9006

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acaagccatg aaataataaa acacagtcaa ggttctctcc atgtcaaacc accagcatcc 60
ccacctgaat gccccggaag tctgacggtt aacctgtgca ggccctggtc aggcctgtgg 120
tccccaaggg ctgccggcag caaaggcacc acggaagctg caggggacag gggaggccgc 180
tgcttcttgc atttttgtct gaaaggctcc tgtggagtcg acgagggaat tctcactgaa 240
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acctgtgtan gccagcctct ctctcctgcc gccctgctgg gacggaagcc cggacgtacc 480
tgcacaagcc acaagtgccg gtgcttggct taaacctttt gngagctcat ctttcttggg 540
cttcttcaaa atatccctga 560

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<210> 9007

<211> 554

<212> DNA

<213> Homo sapiens

<400> 9007

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ctctttcttc tagttctcgt tggattctc tcatccttcc cttttcgctc tttcttacgg 60
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ggtttacacc tgcacatctt actggtgact tacgccttgg agacaaataa ggccaacgtg 180
tttcttttaa attttcttca tctgcttcga tgtctgccaa aatttttct cttttaatag 240

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atgcatgtgg agatgcatga agatcaaag gtttacacac tgtaagagt tttggagact 300  
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 atccgcaagc tgacctacaa ggcagaggag atgagttctg taaatgctcc tgggctctta 480  
 nctgngncta aggttccata gaagtcttct tctttaactt ggcantggga gttgaacct 540  
 aagtagaatc gagg 554

<210> 9008

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9008

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 tcacagtttt acagtattca aaaatgacag acctgcctta aaaaacaaaa caaaaaccaa 180  
 aaaaggacta ttacacccaa aacataagaa aacaattaaa taaacaagtt tggcattttc 240  
 ataactttat agtataaaac agaattattaa atttattact ggcaaacgga cactgattta 300  
 tttcctttga aatgtgtccc atttaaaccac actatacaag ttcattatac aaaagatgga 360  
 tgatcatttt gatgaaagaa gtgcaccctg aaaatttttg ccagtttaga atatttagct 420  
 cttaaagggt aaaaaaaaaag ctttttctt ttttaactg aaggctgaat tcagaatttt 480  
 tttggtggct catctgncaa gcctttctgg gttnaaaacc atngnggcta ttggccccc 540  
 caagggggca nggaagaata ct 562

<210> 9009

<211> 560

<212> DNA

<213> Homo sapiens

<400> 9009

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aatgtcttca atttattatc ttttccacag tacacatttt tcacaaaccg taaatccttt 60
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aggttgtgaa tgttttaagt ccttcaatca agtttcaact cttccacttg cataaggaat 180
caagagcctt ctctctttta attatgtgtg ttttatcata cagcctacaa tgcagtaaatt 240
cacagtgaag gccctgggga aaacaaaaca acatgatctt tacagcggga cttgaaactt 300
cacaatagta aatgcagttc aagaagcttc ccataataaa agcgcgggtt ttcatttcca 360
gaaatcaagt caattagaaa ccctaggttc tacttaaaaa cccattttga tctaaaagt 420
aaaacagtcc cctatccata ggcattttat aaactctata cagtttact tgcagagatt 480
ttttttttt ncagctngga aacagtnntg gcgaagggtt agcccgggat gccctggaaa 540
nctggtnatg gctcaaggat 560

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<210> 9010

<211> 487

<212> DNA

<213> Homo sapiens

<400> 9010

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aagcaacgca cttttattac cttacagtca aggggggtcag atgtctgagg nggggtccca 60
gaactaaaat ccaggtgttg gcagggttg ttcctcctgg aactccagg gaaaaatcca 120
tcccttgctt tttctggcct ctggcggcac ttgcactcct tggctcctg tcccttcttc 180
cgtctttaaa gccagcagcg tccccttggt ctgtctctga ccacggctgg gaaggagtct 240
ctgcttttgg gcacacgtgg ctaatccagg ctaccctntc actgcagatc ttcaactcaa 300
tcacacacct acaaagtcct tttggtctgg gaggtaacac tttcccaggc tccagggtatt 360
agggttgga catcttgggg actttattct gcccaggaaa ggtggtatca agggagtctg 420
agcatntgaa ccttcccang ggactgaagg aaaggccttn agnggcctct tcctcctcct 480
tannaan 487

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<210> 9011

<211> 541

<212> DNA

<213> Homo sapiens

<400> 9011

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acaaataacca aaagatttat thtagacaat ttgtttacac aattatacac attatgatac   60
acgtttgaaa cattaacaca cgtggagact gctaaatcat ttaatatctt ttttgcaaaa  120
agataatttc tttaggctgt gatacctgca ataaccaatc tgttctcatt tggatcagat  180
ctttctccct ctgtcctgga gatctcacag ttcactttgc tgaagcaatc tatccacttc  240
cctatcgacc ttgcttatag cagttcaggt atagactatt tgagccttat atactaaact  300
gttaagccag tgcgtgccct atgccctgct gagaatagat tccttctgta cttgcagccc  360
tcagatgctg aattgatcaa tcaatttttg agacggggtc tcctctggca ccagggtctg  420
aactggtgca ngtcctccag ttgcnngcaa aaggttggca gcagaggaga atggatgatn  480
ggcacttngg cttggtggca actgggcaac acgtcctnna tggagncccg gnattcctaa  541
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<210> 9012

<211> 537

<212> DNA

<213> Homo sapiens

<400> 9012

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gcttggtaca atctatacat tttatgtttt ttaaccactt caaagtaagt ttcagacacc   60
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ggatatccaa ggttttgttc catttctcaa ttctagtctg tgaaattgaa gtctgatgac  180
cactcttaag agggctgttc attagggtgc gggctgggca ttatgagtgt gtttttcatg  240
agtcagtgga aggaggggct tgttgtgagc agtgcattgag aaaaacggct tggctttgct  300
tctttttcca gctctgtggc cttggtcagg ttaccgtctc ttcagtatcg taacttttac  360
gtctcactta cggcattcgg tggcatggat tgtacaggca gctggatttg ctctcttttt  420

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actctactgg tccttctcca ttinggetcat gaaaatagnc tntccaagg ttttggcctg 480  
ggtttctntt gggccatgga ggatggcttn aggttgggan atcctggaag cggatnt 537

<210> 9013

<211> 520

<212> DNA

<213> Homo sapiens

<400> 9013

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agaaataaat atttatgtnc agacgaagaa tgatatgagt gagaacacat ttattgtcag 120  
agacaatatg tattcatctg ttctcacact gctatgaaga aatatctgan actgggtaat 180  
ttataaagaa aagaggctta attgattcac agttccacat agctgaggag acctcaggaa 240  
acttacaatc atggcaaaag gcaaaggaga agcaggcacc tttgtcagat ccgggggtct 300  
gggtctagcc catgctgaag tatgaggga gtgggtggat gggcagaaag aacactcagg 360  
gggccttagg caggtgaata tggttttatt cagcagcagc tctcattaac aactttntca 420  
cactagctct ttatgctggc ttnctgnct aactgcttga gctagnngtt ccacatacag 480  
ntgnccagcc ggtttggcct gctttcgggc acagtnact 520

<210> 9014

<211> 578

<212> DNA

<213> Homo sapiens

<400> 9014

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atctgcagga agcactcaa gtcacactgt tagctttaca gacctgaata tacatattgc 180  
attaacagt ggcacttatg tactcaagtg gtccagtggc tttggaatat atgtctactg 240

ggcatgtgga atagaaataa tgtgttaggt ttaaatacaat ggaaagggt tcaaccatca 300  
 acaaaagcaa caattatgaa ttcataatcct aggcaaagaa agtaccacag ttgacacttg 360  
 gtgtcagaat actggagaca aagtatgtaa aacaatgcct gttgcagcac cacgtgctca 420  
 ctccaactcc cagtggacag tcccccaatg ccttanggtc actcgtgggc aaccaaatgc 480  
 aatcaagaag ctcgatagct tanaataaaa ggctgtaaag ctgatatcaa gattaaggaa 540  
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<210> 9015

<211> 573

<212> DNA

<213> Homo sapiens

<400> 9015

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 ggtaatggcc agttggggag tgagggtagt gtgcacacac acaaaaccct agggaggtct 180  
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 gctatgtggn ggtacacaat agttcgagtc tgttttcggt tacaatcct catcaaagag 300  
 ttcattgagag agggttactt atctctgttt cacagatgag taaaacgagg cttaaaggct 360  
 aagtgcattc cctatgtaaa aatgctggat ttcagccact gtgtgcagtc aggtgctggg 420  
 cctgggttcc gcaagtggac actggangcc ccttctcatt aatgtagcac agccacattg 480  
 agggcgggtca ttttggcagg gtaaanatga aaaaagtcn anaagggcaa nggatatcct 540  
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<210> 9016

<211> 575

<212> DNA

<213> Homo sapiens



<400> 9016

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gactggagga ggaacaccat tatgcattgt tatcagcgtg gtgtaatttg actgttgaca 180
aagtatccgt ggcagtgcca atgagcgcag ttagaagtgt ggcggattgt aatcaagaag 240
atgcttagct gtgcaacact gcatctcgag cagatttgaa tcaacattgc ctttaaggga 300
cacacacaca taccaaaaga aaaaaaatcc attaat ttt agaggga ttagagtggc 360
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ttcaaattct tttactgntg ncacatgaa tggcacattg cnttgctgga caaatnctaa 480
aattgcaaat tggcttggtc cggaagtttt acgtttgaag ataccctgga tccttaagcc 540
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<210> 9017

<211> 585

<212> DNA

<213> Homo sapiens

<400> 9017

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gcatcatcag agggttttac tgaacttaca accgacttgc ccgctcagta tgcagttcag 60
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gtctaccaca ggcaaacagt tttctcccca tttttagta atgcgatttt cctattagca 180
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caacactgca catcaatgat gcatatgtcc agaatcagta ccaagacat tcgaatcttt 540
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<210> 9018

<211> 570

<212> DNA

<213> Homo sapiens

<400> 9018

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ggagatggag tcttgctccg ttgccagga tggagtgcag tggcgcaatc tcggctcact   60
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ctacaggcgc cgcaccat gccagctaa gtttttgtat ttgtagtaga gacggggttt   180
cattgtgttg gccaggctgg tctcgaactc ctgacctcaa ctcatctgcc cgcctcggcc   240
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<210> 9019

<211> 576

<212> DNA

<213> Homo sapiens

<400> 9019

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cagtcctgaa attctacttt gatctactgc tctcatcttt gaaactgctc taaacactcc   180
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aatcctgtac ctttggtaac atctctcctg actggcagag taccagaca ctttaattaat   300
gctgatgaaa attaagattt aagcaaagaa gaaattggtg taagaatgca agccttagga   360

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tctgaaactt gatgactgtg ggatctaact tctgcttctt ttgctacaag ctctgttttt 420  
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 ttgatttccc atcaaaagcc ctgtatgtgn actagnaatt aggacctacg anctggatat 540  
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<210> 9020

<211> 563

<212> DNA

<213> Homo sapiens

<400> 9020

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 tctgagatag ggtctctaag acccaggata caagggtgga atgtagctat atggactcga 180  
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 gttccatcaa agctgagcgg cagcttttga actcatttct cttagatgag ctgcatgtga 360  
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 atggagagcc tcttctggtc cacaaacttt ttcaccagcc acatgggcaa atttgagggc 480  
 ttgctgacag gttctttttc tgcacgggag cctntgnttg gcanaacntt tangggnaag 540  
 tccngagcaa cccccaaggg ggg 563

<210> 9021

<211> 579

<212> DNA

<213> Homo sapiens

<400> 9021

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atgcatgctg gctcaaaaat ggcagctctc atcactatca atacaaaaac ataaagcaag 120  
 acattctctg ccctttcttc ttgtttctgg atgtataaat gaatatttct ctatggagga 180  
 aaagtcatga acatgagggt aactccacga cacaaagtcc atggctgact tcccactcct 240  
 tagccagatg aaaggtcaca gcttagagga acgggtcttt atgtgcttat gacttggtgt 300  
 tggaaggagt tccctgacca tgggagagct cagctctgtg atgatttagc aaagcaattc 360  
 agaatgaaat ttggcctggg tatacactaa attaatgtac caaatccacc tacctttcta 420  
 gctaattgggg aattatgaag gttgccttgg aagaacaaat atttcccaat agaattcacc 480  
 gggtcccacc aaaacagtca agaatttggg gttctggggg gttgccatt ntcccgaatt 540  
 ggaancctac ttaactttat tgggggtctt aaagctnaa 579

<210> 9022

<211> 556

<212> DNA

<213> Homo sapiens

<400> 9022

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 gacaccaa atgtattttt ccctttgcta gtaaaggat aagcagaaac aattgcaaaa 120  
 gaacacataa catctagtag ggataatgat gaaagccaaa aatggattat ttgaaaataa 180  
 ttttggaagt aaaaaaacca taggtgtgag gaaaaagag agaaactaca aataaactgc 240  
 attgtgataa aacaataaag cacatagcta aaagcctatt aaggattttt taaaaattat 300  
 attttgagaa acacttgggt ctaataattt tctcaaaagt caaatatcca aaagtcatac 360  
 agaaaataaa acaacctact ttccatcaaa agtttcta atttattctga gaaaagataa 420  
 cccaagaaaa caattttaac tccagaaaca atgggtagcg taaaaattan taatcaaaag 480  
 ataaccctgt tntaggnctt acaacttata accatttctt catacaatct catatttaag 540  
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<210> 9023

<211> 479

<212> DNA

<213> Homo sapiens

<400> 9023

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cggccgcaac ttatatTTTT aaaataggct tttagatcag ttttaagggt tattttatag  180
ttaactagca gaaaatgtgg attaaaatta cagtaccata ctcaattaaa aatcatgcgc  240
tacataatTT aagttctcct gttaacttct gtttgggttg aaccccgaag tacaataagt  300
gtagattctc attgtgacct acctgcccct tagggcattt tgcaaaaatt anccccTTta  360
ccaattggaa aggcagggtgc cangggcttt atggatttca tttaatctgg aanttttatc  420
ctattanacn ttgaaactgg gttaaatatg aatngnccaa tttagnaaa tattcatnt  479
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<210> 9024

<211> 551

<212> DNA

<213> Homo sapiens

<400> 9024

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ccaaattcaa ggtctttatt actagttcca cctcacaagc tagtgggatg tatctgtgtc   60
acaagctgaa ttcctcagta aagaaagctt gagaagacac taaacaagga tgttactaaa  120
agacaatgat ttgttaaaat tataaagcaa tcattctttg gcctgcaaac agtcaacatt  180
agaactctcc accactgagg atctggctcc ccatcacagt attattctga atccaggata  240
attacaatca catggcattt ttttctgcat gctttcttgg cccaaccct gcatgacaac  300
atatacaatt tacaagatgg gacttgaaat tccattctc acacaggata gttagggcgt  360
gttaccaata ataaagaata aaagttatac aacattgatt attataaatt atattngntc  420
ttatccaccc ccattctcct taatatggta ctttctttcc tgcagaaaac atgatgggtc  480
tatntnccan tacatcatta atgatgatta gaatgagctg gtaaagacct tggatttgaa  540
aactgtttgg g                                                    551
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<210> 9025

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9025

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gtttgctcat tcattcgttc atttatttac gtatagatag cttatgacac acagattttg   60
gcgtggctta ttgaaataaa atgaatgcaa actttaaaaa tttggggaac aagtttttaa  120
cattagaata taaaataagg atcaagagaa aacttagggc agagatacgc agccataagg  180
tcttaaatag cttttatagt tgaagcctca ttttgggtta aagcttctgg tagttaaagg  240
gaacaaaaag atagtgcctgc agaaagtctt ggactgggaa cctggagatc agatttatta  300
ctgaccagtt ttgtgccttt tggcaaagca ctttatttct atgagccttg gtttcctcat  360
ctgngtaagc gatgggttat taaaagggat tcaatgggat atgggctcaa accttatnga  420
actccagaat ttggagnatc ttttatcctc antantagca catggttaag gggttttttt  480
gcaagncctg gaccaaagtt ttgggggttg cttcttccac cacaagcttg gggctttggg  540
ccaaccnntt gacttntttg an                                           562

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<210> 9026

<211> 556

<212> DNA

<213> Homo sapiens

<400> 9026

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gtagagacag ggtttcacca tgttgcccag gctagtcttg aactcctggg ctcaagcaat   60
cctcccatct cagcctccca aagtgcctggg attatagttg tgcggcctat gtgcaattct  120
gaaccagaca tgaacgctta aatcagaact agtattgcaa tagctgctaa tatttccaca  180
atgttataaa ttgcaaagtg ctttcccatc tcacttgatt aaaccaagct ccatgctaac  240
agcagcctcc tcccagggtc ctttgatttc atttttactg cagtccattc tcgacacaaa  300

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aaccagggtg atcttttttaa aatgttgatc agatcatatc actctcttgc tcaaagtttt 360  
 ccagtagatt ccattcccccac taagaaaaac atttaaattt ctgntggcct nttagaggtc 420  
 tttctacatt cttnctgcan gtgcttactg gcaacagtgg nctttcaatt nctagaacat 480  
 gcccacctt gggcttttca caagaacctt ggacctggcc agctttgctt gaacctttt 540  
 aatccttttt aaaggg 556

<210> 9027

<211> 394

<212> DNA

<213> Homo sapiens

<400> 9027

ccttattagc cactggcatt tatcatatat ttgagacact tccaattgat tgcacaagtc 60  
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 aggcacctgt agtcccagca actcaagaga ctgagggtgca aagatcactt aagctcagaa 180  
 gttccaggta gtgtgctatg actgcacctg tgggtggccac tgtactccag cctgggcaac 240  
 atagtggagc cctgncnta aaataattaa aaattctgac tattttatta agaaaaaggg 300  
 ttantctta actggtacca nggccctat ggacctataa ntggcaccc tgntccactt 360  
 aattcttttt accctggctt tntaaggnc t ggan 394

<210> 9028

<211> 560

<212> DNA

<213> Homo sapiens

<400> 9028

ggatgatgag aaggcgtatt tatttttcac tgtacagtat ttaaaaagag aataaaaaaa 60  
 tccaaatggc tgtctggctc ctgtgccttc tttgtcccca gtttgggtcca tttgtttctc 120  
 taggactgac ctgccctggc ccctggctct tgttttctgt tcctccacat ctgacttctc 180

ttcattgtct cttgtcccaa agatggtctt acttctggga atgactcagg aaacaaaaat 240  
 ggtctccctc ctcggccttt cttgccccag gggcagttct gggatttgag gagcaacagg 300  
 caccaggaaa ggggttgggg tgggtgtccg ggatgctgcc cctggagaag gtgaagcggc 360  
 ccgatgaacg cgttcatggt gtggagctcc gctcagcgcc gccagatggc gcagcagaac 420  
 cccaagatgc caacttcgag atctccaagc gcctgggccc cgcaatggaa ctgctggacn 480  
 aggacaaaa acgggccttc gtggangaag ncaaacggnt ccggcccaa ctggggcgaa 540  
 tancccgact acaagaccgc 560

<210> 9029

<211> 558

<212> DNA

<213> Homo sapiens

<400> 9029

gaaatggaag tgtgtttaat aatttgaaac cacaggagag gtctgtcat ttattacagg 60  
 gccatgtttt agctcttctt ggatcgtctc agatctgcca ttcctctgga tatgaacctg 120  
 tggccgtggc agaaaccag aaatcagtag gggcttggtg tgttcttggt tgatcttcac 180  
 gttaagatgc tattgagctt ttttatccat ggatggtctt ccaacaactg catccctcac 240  
 agtggcctga gtggaattac cgatatgaga agaagcctgc tccaacacat atgcggcacc 300  
 aaaatcaata gtcgcgcca gctcacgata ttgaccagaa tacctgatgt agccccaggt 360  
 gaggagtgtt attaacagta gtccaacat acagttgaac aactggggct acaacctcaa 420  
 gacctatgaa gccagtgaag gcctgaggct atgtccaaag ctncaatgcc cntgaacaag 480  
 acttgcaggg gttcggaagg ngctgaaaac gtcttgtacc atgggcttga aaagtctcat 540  
 aaatncctgg attcccc 558

<210> 9030

<211> 551

<212> DNA

<213> Homo sapiens



<400> 9030

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gtgatctgca tgtgtgacac tgattctttg gaaataaaga gtggaagctg caggtgacac 60
gtgaagggtt atttatggtt atgatgacc tgtcctgcaa cgaggactg gcagccacta 120
ctgaggagga ggggtcccatc tctctcctgt cggttttcac cgaggtcaca gccagacgtg 180
gggcaaaggt gttccctgtc ctaccagcc gttcctgggc ctgccgccta ggggctcaca 240
gggcccagga gtccccagct cacaggccag ggcacaggc caggcgcgct cggtgcacac 300
cgcacctgtt tggttagttt tttacaaag acaggatctt gctgtgttgc ccaagctggt 360
cttgaactcc tggcctcaac aatcttcac cttgggcttc gaaaagtgtt gggaatactg 420
gcatgaacca ctngccccg nttgagctcc cggttttnaa cactgnacca atctngaaaa 480
actgaccttt ttctggccta caagttatct gaacttaatg ttaggaacaa aaaaccnttn 540
tgacaccgt g 551
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<210> 9031

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9031

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atctttggaa ttcatttcat taaggttttc aaaaaatata aagctcaaac gtaatcatct 60
atgtccacca caaaacagaa tcaaataagt ggtagcaca acaaacatag tgatcttttc 120
cattttaaaa aatataaata acaatgttca aggtttttaca gttttcttag tgtgtgtctt 180
tttaaggctt tatgttgcag acccttcatt aatggtaact gtacctgcc atcaggatac 240
actgccacc agcaaggaag gccactgtgg atacattcct gagggggaca cacactgatc 300
catgttgcct cagcctgtta aaaactaaat gatcaaacac cctncaatca gttctcagtt 360
tcattaactt ctttctctca aagtantaat agaaaggggt ncgtgtccag cagcattcga 420
gctctcagaa gatcaatcag gaagggcann aaaggaaaaa ggcttcctcc tggaaaagaa 480
tttttttctt ttcancagga accaacccca nttaccena angttcaacc aggggttggn 540
cctgaaacat tttcaaataa aa 562
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<210> 9032

<211> 531

<212> DNA

<213> Homo sapiens

<400> 9032

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gtagtttatg taaaaattta ttgaccaa atgtagaaaa agtgatacta ttacatatga 60
tacagttgca agaattctaaa gtgtggattt tattccattg cacaatttgc tagtgtatgt 120
cctgggtagt gtggtgctga ataaatagga atagggtggt ccctgggtctc tcctatagtt 180
tgaccaacag ttgacccaaa aggttatggt cttcagcggt ttaattatat ccacgactag 240
atactggggt ctgtattctt caaagtgtgg ggctgcctat tctcccagga accaaatggc 300
ctccgtctta agaaagtatg cttactagga aataccctgc ctacctagg aataaatgct 360
acttaaggaa aaaataagag agctgaaaaa gctggtgccca ttgaaaaaa aaaagggaag 420
gaatgagatt taactgggct caaagcttnt ccgatncaaa atatttgggc atgnnttcat 480
aattgcttgc catttnccgc caaacccaan atggcattac caaanggact t 531

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<210> 9033

<211> 507

<212> DNA

<213> Homo sapiens

<400> 9033

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gagacagagt tcttgctctg tcgcccaggc tggagtgcag gggngcaatc tcaactcact 60
gcaagctccg cctcctgggt tcacaccatt ctcctgcctn aacctcccga gtagctggga 120
ctacaggcgc ctgccacctc gcctggctaa ttttttatat ttttagtana nacgggggtt 180
taccatgtta gccaggatgg tctcgatctc ctgacctcgn gatccacca cctnagcctc 240
ccaaagnct gggattacag gggtagacca ctgcgcctgg ccatgcctgg ccaattttta 300
tattttcagt aganacgggg ttttgccatg ttggccaggc tggtcgcaa cttctgacct 360

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caggnaatcc tcctgcctna gcctccacac tgctgggatt acaggtatga gccccagtn 420  
ccggnccttga atccctctat ttcccccaa agaaaaatgc tgnnttacc nccaacagaa 480  
ccttcagga acattnaagn attgcat 507

<210> 9034

<211> 564

<212> DNA

<213> Homo sapiens

<400> 9034

ctatctgggc tttcttttga gctcttcttt gtttattacg tagcttcttt agctctttgt 60  
cagacatgtt tgctgtatca gcttcgtgtt ctttattctc atctgtaagg gggttgtcat 120  
gaagcttcaa atagatctct atagcaattc ttgctgcctt gaagtaaaat ggatgctgtc 180  
gaagtacatc ttctagtitt aataagtcca catatgatct aagggtaatc ttcctcatac 240  
agtatgtatg aaagtcaaac tggatcatcag tgatttctat aaaatgtctc tcaatctcgt 300  
gacatttctt aagtgttcca ccaaatttat tcattgcttt ataagcctgg gcacattctg 360  
tttggacca catgcactgc atttcattca aattctctac cgctgatgnt ccttcccttg 420  
gaaactttga gcacatttct tcaagcttct ttaatcaagg tgggctttta accatgnatt 480  
ttgcacantt ggaggtggan aaaccggccg gtgggggncca aggnctgggc ctatcatcca 540  
ccttgaggt tcttaanatt nccg 564

<210> 9035

<211> 570

<212> DNA

<213> Homo sapiens

<400> 9035

attaaattag ttgctttata aaacattgca gatgtcataa ttgttaacat aacaatttac 60  
caaactgtag ttaactgggtg cagtttgctg agcatgtttt ataaaggaaa ggaaaggaaa 120

tgccaaaacc ctggtaaagt tgttcattg cagcctaaga gaacaaagat ttgtttctca 180  
gacacttaaa tcaggcaaat aaaaataagt ttccctcccc cacctgaagc agttcatcag 240  
tagaaatagc ctgataaata actagacagt ctttgcactc gagagattcc acaacatgta 300  
atgcaataat ggaaagggtt accttcttta gcttcaaagt tggagggtt tggtcatttt 360  
aattttatat caaactaagt gcttttcaag cccgcagtat cttcactctg agataagcag 420  
tcttcttcac aatgggattt ttaanatccc cangtccaat ttttagacca aagcantttt 480  
aatactaggg gcacacccca tgccctgntg gaaactgggt tttcttggcc aggttttgaa 540  
nnanttcaag ggggggttggg taangcttgt 570

<210> 9036

<211> 531

<212> DNA

<213> Homo sapiens

<400> 9036

actcttaact tcctggagat ctttaagaga ttctgttgaa gattcactgg gtattgaggt 60  
cccatcttta ttaatttctg caaactgtat ctcagggtgt gatttcacat ttatattgta 120  
ctccatgaga ggtggactta gttcttcttc ctcattctgt aactcttcta tttcaatacg 180  
ctgactgcct gttattgact gtagagcaat tccttgttga tagcaggata acatcctctg 240  
tatgatttct ggtactggta tgcctaggta gacagatagc tgatggtaat caaggagat 300  
attctcaatg ggatttctct tcactttgtc aatatcctct tgcatcatcc caaggcgcag 360  
aagaatatct gaaacttttt tccaaattga attgaactgt gactcagtga gaccattcat 420  
caaaatctca ctaaggaggg atatccctgn attttgcaca gtctcangaa gnetgcanaa 480  
tttanaagat gtcnnaaaat ggcgggtcca tattccatcc ttttttgggg c 531

<210> 9037

<211> 547

<212> DNA

<213> Homo sapiens

<400> 9037

atgagaatga tttatttccg gtctggccag ctctgaaaga gacacatggg ggattcggaa	60
ctttatggca caggcactgg tgcactctgct ctctttgtcc agtcacactt gggatgctta	120
attttcctga tattatacat gcaaatacact tacttttcat agaatttacc attcatcaaa	180
tgactttcaa caataacaat ggtctgacat tctttcatgt cgtactgaga tttcagatat	240
ttattagaga aactataaga cagattttcc taatatTTTT gaagtatgag ttcctctgaa	300
tagttggtat aacatccatt aaaaaataga aaaggTTAAC tttttaccat gatcaaagct	360
agagttcaca atgaaacacc tgcatagctc tgcccaacat ctctgtaaca acagccaagg	420
gccggncttg aacatcatgc acagcaatag angnatcatc catggagtcg ancctgtggc	480
ttgccaaaaa tctggnaggn ntaaaacgcc tgaccactga attgggaagt aggaaactaa	540
ccaggtt	547

<210> 9038

<211> 567

<212> DNA

<213> Homo sapiens

<400> 9038

cttctcttgg ttttattgtt tggtagaaaa acaggctctt taacactgaa taaacatctc	60
acgaactgtc gctcctagat tacaaaaagt caaaaccaat ttcctttgac gccggggcct	120
tgaatctgac attcaagtca ccgtaataga aaccagagct gctgaacctt acattctgga	180
aggtgcttga acaaaggcat gttaaggacc gtttaaaact tctagcatgt aagaagatcc	240
atctttcctt ccaacgcctt tggataataa cagcagaatc ccggagatct gctgctgagt	300
ttgagaaggc caagtttaag gattccaaac tccagccttc aatatttctg cagaaactta	360
gagaagtaac ctccccgtcc tctccgctgg ctcccccaag tacagatgca ggatgcaggt	420
ctttcttctt gctacccagg caccgaggac tnaaccattt accgncttna tncgtggcctt	480
tnttcaatgg gctcttggag gaaaaacttt tcggttttgc caactttaag cccttaaaaa	540
agccttttgg ttaaaaaang gcgggng	567

<210> 9039

<211> 573

<212> DNA

<213> Homo sapiens

<400> 9039

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ggatcttgct ctagtgtgag cactcctgaa cttcacatat tctccttgct ccaaattgcaa   60
gggtttactc tcaagagact ctaggctcac tgcccataaa cctttgagtt ggaccaaattc  120
ttaacatccc tgtggatttg ctcatactgc cctgggcaga actctttcct tctttggaag  180
tctgaattac ttcataattg acatctatct tgaaattctg ttttacaggg tttaggatgg  240
gggtaggtag gcacaggaaa gagagtagag cattctctct tttctagcaa tttccattat  300
catgcccctt ctagctttta gaccagcagt tctgagacag ggattatttg cttttgtttg  360
ataggtcagg ttgtctggga tggtttgcca atagaaattc tatagactat tattgntcaa  420
agagcaagaa ttggcttaac tctcttcact tatatgtgan gctctggcca tacttaacag  480
acaccccgct ggactaacac agatatggtg ggcctgctgg gctctttcca atgggcccac  540
acaagncnca ggnntcaaan catggcnctt ttt                                     573

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<210> 9040

<211> 494

<212> DNA

<213> Homo sapiens

<400> 9040

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ggctgtgtga agttatcatc agtgcaaata gccgagacgg gaggggagtg gagatgggga   60
acagccgaga tcagcattca tgggcatcca cggtgccgag gtcacagaag gaactgaccc  120
gagagccgtc acagggcggc cttagggttag acttgaagga gaacttccag gtggcagctg  180
ctgaggccag gacggattga caggagacgc ctgggccacg tgcccaggct cacgcctgga  240
atcccagccg tctgggaggc tgaggcgggt ggatcacctg aggtcaggag tttgagacca  300

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gccggagcaa catggtgaaa ccccatctcc actaaaatca cagaaattag ccgggcatgg 360  
 tggcgggtgc ctataatccc acttattcgg aggctgangc aggagaatcg ctttgaaccc 420  
 nggangcgga actttgncgt gagcccaaat cgngccactg nacttcaacc tgggcaacac 480  
 agnaaaactt cctt 494

<210> 9041

<211> 582

<212> DNA

<213> Homo sapiens

<400> 9041

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 ccttttggct tccttggcac aatttatcag ttcttaacaa actaccataa atatccataa 120  
 ggggaaaatg aatttttagaa tatgaaagag aggttaataa atagccaaat atgtcaacca 180  
 ttgaaatgac caccaatttt aagattaagc ccgatttgca acttttattg aaataaatgt 240  
 catctactaa aaacaagggtt aatttataac tggatctcaa cttgtttaat agcaattgaa 300  
 ttttgacata aaaattgcaa aacttcagct aaagaacaaa taaaacattc agacacaagc 360  
 ttacacttca aaaattctat caacttcaac aaataatgaa tgactgnata ttaatttaca 420  
 ttagtcctgt ggtctagagt acattttcca tttaaacatt tttaatagaa cttctgggat 480  
 ggcatggaca gcttctagtg ggnaatagga tatagtccgg tcttgntgga agacaccctn 540  
 gacaggatgg tggcnggaag ccngganaaa gcctgaatgg gn 582

<210> 9042

<211> 567

<212> DNA

<213> Homo sapiens

<400> 9042

gagatggagt ctcactctgt cgcctaggct ggagtgcagt cctgcaatct tggctcattg 60

caatttctgc ctcccgggtt caagtgattc tcctgcctca cctcctgagt agctgggatt 120  
 ataggcatgt accaccatgc ctggctaatt tttgtatttt tagtagagac ggggtttcac 180  
 catgttggcc aggctggtct cgaactcctg acctcaagt atccaccgc cttggcctcc 240  
 caaagtgcag gattacaggc atgagccaca gtgcctggac tcatttattg attcaatcat 300  
 ttatttatat cgggtgtgggc tcgaggatat ttattttatt ctttgggttg tgatccaaca 360  
 ctgctttatt ttgttgctca cactgtttca gcttcagcca ctgggaacat cttccctctg 420  
 catgcccac tcacatcact gnatgtataa agttctgnct tgctctctga ctctacaaga 480  
 tctcagctta tcttggatac tttctggcct aagtttataa tcagctattt ttcaaggaac 540  
 cctggttcgt ttaatggaaa anggggg 567

<210> 9043

<211> 556

<212> DNA

<213> Homo sapiens

<400> 9043

cagtagagga aaagaaaact tattaatgat gccaaaggcaa ctagttaagg caactgaagc 60  
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 aagctagggg taaattattt ttaaaatatt ggaattcaca aaaagccatt caaagcataa 180  
 gatccagagc acagaaaaaa tgagtaatac atctgactac tacataagta ctaaaaacat 240  
 gtccatggca aaaaaaaaaa aaaaaaaccc acagaaaaac aacaacaaaa cagaaaaacc 300  
 accaacaataa tgaaagtaag tgacaaatcg gagggaatat ttgcaacata tttgacaaag 360  
 gactaatttc cttaatatat ggagttcaaa cagattaatg aacatgatca acaggctggg 420  
 tgcaatggnt taagcctgna atcccagccc tttgggaagc tgagggtggg canatggctt 480  
 gggncagga gttcaaaacc agcctgggca catggnaaaa tcccattttt ccaaaaaaat 540  
 tnaaaaaatcn cnnggg 556

<210> 9044

<211> 548



<212> DNA

<213> Homo sapiens

<400> 9044

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aaaaagacag agtctcactc tgttgctcag gctggagtgc agtggcgcgga tctcagctca   60
ctgcaacctc tgcctcccag gttaaagcaa ttctcctgcc ttagcctccc gagtagctgg  120
gattacaggc acccaccacc ataccgggt aatttttgta ttttagtag agacagggtt  180
tcgccatgtt ggccaggctg gtcttgaact tctgacctca ggtgatccac ccgccttggc  240
ctcccaaagt gctgggatta caggcatgag tgagccactg tgcttggcct gattttcata  300
tattaaatga cctttgcagt cctgggataa atttcaattg gtcattggtg ataattgctt  360
taatattgct ctggatttag tctgccagca tgttgctcag gattttcggt cctggggccac  420
aattctagac acaccctggg ctggaaggga acccactggc ttgaaggaaa ggaccccatc  480
ttggctgnat tcatggctgg ttaactgaan aanccttngn ccctgaataa ccngcngaaa  540
tacctggg                                     548
    
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<210> 9045

<211> 566

<212> DNA

<213> Homo sapiens

<400> 9045

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gacatgcttt ttctaaagtc ttttagtatg ttctacagt atcattctca agtcatataa   60
actacttgcg gtggtactaa gtatttaaat atagatgtgc tatcaacact ttcttaactc  120
tagaatatgt ttagaaatat tcttcaacat agtatgatgt caatgcagaa atgagaaaag  180
aactaaggat ttacatcagg ttacaataca ttaatcaaaa aatacatttc tgtgcctcta  240
tgaattctta atattaatgt ttgcaatttt acaaaatctt actaaaaatt ttggtatttc  300
tttccctata ttcttcaaca atggatataa gtattgttag tgcaaccagt taacagcaac  360
actctgacgt gtttcataaa aacctatact attttataaa aaatcccttt caaaataact  420
ctttcaaagt aaagttccca aaaagggtta ttaattccct gtngacatac ttcataaaag  480
    
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gtcagatatt ngcaatattg ccaaacttta cggacctaata aagaagctnt ttaaagcacc 540  
gggggtttttt nccnggttat gcccnng 566

<210> 9046

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9046

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ttgactcaga aagctctttc ttccctgggtg cttttcccag cagcatttgg gcccatccat 180  
tactagagca gcaagtagag gttttggaat cagagagttc tgggtccgag ttgtgactct 240  
gtacttact agatgtggta tcctgagcaa gttacccaac atctcttctg taaatggtta 300  
tcatcaaaat gaattcctag gagtttgagg attaaataat gtgtatagta tacacaaaat 360  
ctagcattca gagctaaatt aagagtagct aagcagttca ataggaacta ggacccatgc 420  
ttcctgtttg actcttgagg caacactttt ttccatggaa agatctggct ttcttacaat 480  
ggctataaaa cctttgaaaa agcactgggtg ctggaanact gggngtactn gcttggaaat 540  
aataccattc ctacattntt ta 562

<210> 9047

<211> 469

<212> DNA

<213> Homo sapiens

<400> 9047

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gcaggtggng tgctgggtatt tgatgtgctt ntagataatt ctttggcaga taagaatgaa 180

ttgggggtccc agaccacacca tcccgttaagg ccacatgaat tgaggattaa tcaattaaag 240  
 tgcaattcca aatgttgagc cttccaaatg aggcttgggn attgctctgc agccaccana 300  
 ggcanagtgt ctctgcatan catacatnaa gcagcctttn tcttttttta aatcatagat 360  
 gcccccccaa atttcaagat gtactttatt attntaaaag tgcttaagag gaanganaga 420  
 nttattaatt cagnctctcc tggntccttg gaagaaacat aatganatg 469

<210> 9048

<211> 566

<212> DNA

<213> Homo sapiens

<400> 9048

canaactgta tttgttattc atacatttgc gttggtttaa atacattacg tacaatttct 60  
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 cctgacactg gaggcagggc ctatggctgg canagggacg gngttccatg agtgccactc 180  
 anaagcctcc cccggcattc tgggcccctg gctnttccan agtccacatt caaggcaacc 240  
 tgagcacagg cttgagggan agtggagaaa ggccaggaaa ggatgcccac actnttgcct 300  
 gccaggccca ggaccagctc tctcctacac tggacceaat ttccttctga tcacagaact 360  
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 ggcttcctgg taaaccccca ggcttttttg agccccanat gggcacttta ccaacagggt 480  
 tgggtaaaaa tgttacngag agctttgccc acctngggcc ctttgggtct aaaannaagg 540  
 ggcaanggtt ttttaaaaat tgncc 566

<210> 9049

<211> 576

<212> DNA

<213> Homo sapiens

<400> 9049

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 ttacaagcat gcaccaccac acccagctac ggtgttttct ttagggaagc tatttcatca 180  
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 gagaaattgc agccctggaa gtcgaagtgg gctgaattca aggagatgag ctttggatat 360  
 agcatgtttt ccacctgggt gctctcatca ctaaagctgt ttccgtacat gaagcagccc 420  
 cttttggaag catgtcatgc aggtccacat agtaagcaac gccactctct tttgggggga 480  
 tggnatcang ggcttgactc tttnaagccc cgaaactggg ggggcataat ccacacctgg 540  
 tgaacttttg gtctgggtggc tctgggtggtt ccagct 576

<210> 9050

<211> 565

<212> DNA

<213> Homo sapiens

<400> 9050

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 tgcaagctcc gcctcctggg tttacttacg ccattctcct gcctcagcct cccgagtagc 120  
 tgggactaca ggcgcccgcc accatgcctg gctaattttt ttgtatttta gtagaaacag 180  
 ggtttcacca tgttagccag gatggtctcg atctcctgac ctctgtatct gccgcctca 240  
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 aaaatatgag cccatggtat ggctgagata ccagttgatc ataatggagt ggggtactgc 360  
 aagtatttag ggctggcaag tagggaggtc tgaggctctg aggggagggg ctgggtcaac 420  
 agacaggctc atanagggtc caaggcagga agtgttttaa taatgttaac gagtagcatg 480  
 gcataccgga acacncgatg aatgtcacct ttacctcaag gatttccgga cctnaaagct 540  
 attcaaggca tccagttaan tggnt 565

<210> 9051

<211> 580

<212> DNA

<213> Homo sapiens

<400> 9051

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cattttatatt ttanagaggg gtcccactat gtcaccaga ctggtctcga actcctggcc 60
acaagtgacc ctcccacatt ggcctcccaa agtgctgaga ttaaaggagt gagccacat 120
gtccagtctc tttttcttat atgcaatact cattatagag ctagttgngt tttcctgcaa 180
ttttcttgat acccaaaatg agagcaagtt taacttaaaa atgctgcagg gtttatgcaa 240
tgcctatcaa tgttacaatt ctgaccact ctccatattt attactctca gtattctatc 300
tgtatatttc cttatcctat tttaaactgt tttcattttc ttgtttaatt gtatatgcat 360
ctatgtattt atttccttga aaactacact tgcataaggt agttttaaaa attaatgacc 420
actggttcta cactatgcaa aatatgcaan ggaccggact ctatacaggt atctacaaaa 480
ctaaaaaaaa aaaggggntt aataacttta aaaagcccta caacctttta aaaagccctc 540
ntttnaaaat atttcatatt aaaagnaatc aacccccaca 580
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<210> 9052

<211> 545

<212> DNA

<213> Homo sapiens

<400> 9052

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aggtttgaaa tatctttttg caatagataa tcttatttac attaatacag aatcatttta 60
cattcctaaa tcagacacta atagatgctt tatttttagtg aattataaag gaaaacaaaa 120
aggaaactgt tgagaagtgt tcttcattaa cctgtctaac gacagcccga agatcctgaa 180
acacatggaa actgcgacat gctaccagag ctggtgaggg tgacgccgtt caccgtcccc 240
tccacatctg tctcgtcctc ggcgtagctc aggatcaggc tctgctgccg gctcgtttagc 300
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cggggggatgc ctttcccacc catccgaatc ttctggtctg nctgagtcct aaggggggat 420
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cggcacgttg atcgcttgta caggccctgg gcttttggtt gacccccag aaaaagcctg 480  
 ggctnttnna ataanaaggc cgaaatggat gttggncccg cttcngaana aaagggtttt 540  
 tttgg 545

<210> 9053

<211> 576

<212> DNA

<213> Homo sapiens

<400> 9053

aatgtacgtg ataatttatt tatttaataa acatttatta ccactataca cttctagaat 60  
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 caaaaaaaga catgggtccct gccctcatgg agctcacagt ctagctgaag cagacaaaca 180  
 agtcacaaat acaatggcaa agcaccaggg aagcattatg gaggaaagga ttggttctgc 240  
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 actagagcag aaaagtgcgc caaactgaag agatgaatta ntggttgggg ttttgatgaa 480  
 acataagtgt cagaaaataa attgcccatt cacttacata acttaactgn ggggtctggna 540  
 cagtcccgta tcttaaaagc ctttnattca tnaann 576

<210> 9054

<211> 572

<212> DNA

<213> Homo sapiens

<400> 9054

agggaacaa gattcatgtt ttatttccac agagaaactc aaaagtagga agctcctcct 60  
 tcctggagaa ctgtcacagt gacttcaggt caccaaaggg aggaggtaca gaaagatgct 120

ggtgtatgtg acgaggctgg tggccactga agcaccacag tgcagtggga agaaacaagg 180  
 agagacaagc tgggtcccca gcctaggaaa cagaggtgtg gcagccgggc cagggtctggc 240  
 acaggctggg ggccaagggg aggagctccc tgacgaccag tgcttttcgg ggcctcgggtg 300  
 gtggttgcaa gaaattgcct accaaaactt caccactgc agcaggccag gttgcacccg 360  
 ggaagccgag gaagaaggtg agactcccc ctttgcaggg gtcttgactg agtacttccc 420  
 accataggca gtgggatacg catgctggtt gtaattgtag ttctgatcgg ttttgcctgc 480  
 acgtttcttg aatgatgacc cgtccgacct taataaatgg ntttcaantt gaggaaagga 540  
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<210> 9055

<211> 493

<212> DNA

<213> Homo sapiens

<400> 9055

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 gagccaggtt acagggtcga cccgtagatt cagtctgggtc tctccccatc atgcctctca 120  
 cttccagtct gggcttctaa taggagggcc cgcacttctt ccttcccagt cattctctcg 180  
 aatggagaat ctttctctat tccagggaca ccaaggctca ggaaggggcc tatccatcat 240  
 cagtagagcc agacaagctc tcccatcgga cgtcctgtgg cggggcccag aaatgggtgc 300  
 cgctgcctgt gggactgccc ttccgggagg accagggtgt cttcagtgt cttggcctgc 360  
 acgtggagga nagtaggcag atgtctggtg ctctttaagc tcaaaggcat catggccctn 420  
 tcggaagcag cgggcacaga aaagncccca ttgagccagc gcancgtang gnggcatacct 480  
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<210> 9056

<211> 549

<212> DNA

<213> Homo sapiens

<400> 9056

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aagtgcattg ttataaaatc atctccatac aaaggttggc atcttcctc taaccccacc  120
cctccccagc cctcccaccc ccagacatta gcacattaca ggacagtgt tagaaaaact  180
gagagctctg tggatccagc tctccgcca gtgctgtgac aaacacaata gtgatttaca  240
aaagacctg tgacgccctc acttccttt tgcctcttc tgggtgggg aagcgcagac  300
aattttctct ggcttttaga agatgtcctt ttgaggaatg ggtaagata tatcttttta  360
gtcttctact gctggaaagg atgtcagcac agacacgtat agggggaaaa tgggagctgg  420
angncttccc catgggtgaa gacaaacacc tgncttggac tgggtcaaata ttcatacatg  480
tccctcctcg aanggagcca tgaaccttg agcaacttg agacctatt tgcaaagttc  540
ctgggaatt                                     549

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<210> 9057

<211> 488

<212> DNA

<213> Homo sapiens

<400> 9057

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gaaaaagtca tgaagcttca aatagatctn tatagcaatt cttgctgcct tgaagtaaaa   60
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cttcctcata cagtatgtat gaaagtcaaa ctggctcatca gngattttct ctcaatctca  180
tgacatttct taangcttc accaaattta ttcattgctt tataagcctg ggcncattct  240
gtttggaacc ncatgcctg catttcattc aaattctnta ccgctgatgt tccttcctt  300
gnaaactttg agcacatttc ttcagcttct ttaatcaggt tggttttag catgtatttt  360
gcacatttgg agttgataaa ctggctgctg ggtccaangg cctgggccta atccatcccc  420
ttgnaggctt ctttnaaant tncagctgct tatagatttt agcttcncga gaaagagttc  480
ttttaang                                     488

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<210> 9058

<211> 543

<212> DNA

<213> Homo sapiens

<400> 9058

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gagaatgtga gattttttaa aacaaagaca acataattca ggttaactct gttgaacagt   60
caataaatga aattcatcta cacctgaata aaacatatatt aacaattgaa aaaattttta  120
acaaccacaa aaagtaaaaa ctttaaaca acatgaacag gatttgtttt tagggcacac   180
aaaggccctt gcagcagatt ccaacagtag ctttactggt gtgtcttcta cagatgagtt   240
aaagagacag gctgagctcc acacaggcaa gatgactaac agggcgacag gacagtcaca   300
cagggcggag tgccacaccc ggctataatc cccagattcc actgcagagc tggctttgtg   360
cgtaggaggc acacaaagaa aggtgattca ggcagacatt attcaaagct acttcgtcgn   420
gtaccattgg aataatgggt gggnaaactt ttgggctttg gatttttttt taagttttac   480
tccttggatt taacttctta atacangncc ttaaacttat gccgctgcaa aaacctatgc   540
cgt                                                                    543

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<210> 9059

<211> 495

<212> DNA

<213> Homo sapiens

<400> 9059

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cagaccagct agatattttt attaatgata tataacctct ttaaaacatg tatatttacc   60
aaaagcattc tgatatggca ttcctctagt gngacttttt gcatgtaaat taatacagcc  120
tttttgacct tccatacagt caggttcctc ttcagtgtgg atgtttccta acgaccaagt   180
tcaagggtt tccaacatct ctttactca tgggacttct caatgngtgc tttgacatgt   240
tcccaaagng gaagctaaaa acaaagaaga atctccacac attttacatt cataagattt   300
ttcacacttg tgagatcaca gctgaatatt aaggtataag gcagagtga aggttcaaca   360

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cattccttac agccagangg ccgtgcattt atatccaagg gtcacaagc tcaanagggc 420  
cccnggaaaa aatggaaggt ttttcccctt cttacaatta tagnanttnt nttcagcatg 480  
gggtcaaacn ggctc 495

<210> 9060

<211> 409

<212> DNA

<213> Homo sapiens

<400> 9060

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tcgtcatta cctcaaactt ctgggctcaa gcaatccttc ctctcagct cctcaagtaa 120  
ctgggactat aggtgtacac caccaagctt ggctaatttt tcatttttca tagagatagg 180  
gtctcccaat gttaccaag ctggtctgaa actcttaagc tcaagcgatc ttcttgcctt 240  
ggcctccgaa agtgctggga ttataggcgt gagccactgt gccccgccga tttatatatc 300  
ttcttacatg atacatctta ttatcaattg acaagctgnt cttttacttg aaatttactc 360  
tttgggancg taggncccaa ngcttggggg gggaanggcc naagtnctt 409

<210> 9061

<211> 526

<212> DNA

<213> Homo sapiens

<400> 9061

ggggtctcag ttcactcttt ccttggttat taaatatcaa cttttcctgc ctaatgggct 60  
gaggntcatt ttccattcc tcaaggnaag ggtagactac ctaggaactt attgcatctt 120  
taggccagct ggcttanngc tacccatntg aacccccana ttactacca agtcttcctt 180  
ttgccccttc ctgccctaac agcaagtacc aggccagtcc cttccccagc aaatgccagg 240  
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aggaaggaca gcagtgcctc caggctnttg ggcatnttca catgtttcta gataaaggac 360  
aagctcaact ttggagcctc tggtaggcag aagaaaggag gcaagggaag tatggcctgg 420  
gctttaaan acccggttnt ctnggatgga tccccagatg acnaaaggca aggttcctgg 480  
ggacctggag tcacaccagg gncctagcca agccttttnc tnagaa 526

<210> 9062

<211> 546

<212> DNA

<213> Homo sapiens

<400> 9062

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attcaataat gttccaagat accaatcaat acgtgaatca ttgctttctc ttggaagcac 120  
acattttggt aaatatttaa aacttaattt tcataatgaa aatttttcaa gatagtctct 180  
acatatgcct cctccccact taaattattt aactcttgaa ttttgatctg ttttctgttt 240  
taagaagctc ttttctactc tataactaaa aattcaaatt tatgaatcag ccagtatccc 300  
ctaagtgact atcttgggca aaactagtaa atgcccatatc tgaccacaat tattataaat 360  
aattaacata ttacaaacat ataacttttt tacctgtaaa taccataaaa ttaggtaaaa 420  
tacaaaaact ccagcaacac atatgaaaaa ctggagnagg tttggtaaac ttgctggaga 480  
ttcatggcca ggtcccacaa cggnggcaac tggcttggat gnggggggga catttggttng 540  
ggttttn 546

<210> 9063

<211> 530

<212> DNA

<213> Homo sapiens

<400> 9063

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aacctccgcc tcccgggttc aagcaattct cctgcctcgg ccttcctgaa cagctgggat 120  
 tacaggcatg tgccaccacg cctggctaata tttgtatatt tagtagagac ggggtttctc 180  
 tatgttggtc aggctggtcc tgaactcccg agctcagatg atccgcccac ttcagcctcc 240  
 caaagtgtg ggattacagg cgtaagccac cagccccagc ccatatttca gattttttaa 300  
 taaccactta cttaaaaaaa aaaaaaaaag aaaaaagaaa ccacatagtt gtgattcaag 360  
 aatcttcaaa tctatgcact tcaaactgaa gcaaatgaaa tacgtaaaaa tgtcgagtta 420  
 atcttcttgg ctctttctna aatcaaatta caaactctta acttcnggat tagtttccca 480  
 aattngnaaa agtagtctat tttaccncc aaaaaggggc cncatttntg 530

<210> 9064

<211> 540

<212> DNA

<213> Homo sapiens

<400> 9064

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 agtaacttac aaaaagaaaa aaaataaggc agcttcataa cacaattatt cttttacact 180  
 tttacaata taactcctcc cgttcagaat aaatatacac ccaatgtatg gagcaggatt 240  
 caaagtggat agtggcttgg ggggtgcttag acagtgttat cgcttgggac ctggagtcct 300  
 gggggaggca gtggtggtct tcttagacat ggttgggatt ttggaagggt tgtttagccc 360  
 tctcctggag ttgccttggc cccctgcagc gctgctttct gaagtgtcgg aacaagcaga 420  
 ctgcgtctct aagangtcaa agtcagaacg tcaattnctc gccggctgct gggctcgact 480  
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<210> 9065

<211> 553

<212> DNA

<213> Homo sapiens

<400> 9065

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atgttttttt ctgtcagttt aatccatttt attgacttct caattaacaa caaaattcat   60
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aaatgttata cagagccatt ttagacaacc aatgtatctt aagtacaaac ggtaaaaatt  180
cacattccct tcagtaactc tccttccact tagaacacaa tgaacttctt aggtaggcag  240
agttctcggt cacttaacca caaccccat ttagcacaga actgcagcaa aaagaattga  300
agaagtgatt agaaaggata tgcattatta ataaaccata tgctatgtga gtgttaggtt  360
cccacgaaat attttactgt atatttaaaa aaaaatccct tctcaagggc actgctttca  420
ttcaaggact gatttcatta cctacttcat tatcttttat aggggaaatg ctccttttca  480
aggtattaat acacactgga gttggtacca ggnaacactg gnctacacct ggaggttaaa  540
atnttagtgc ngg                                     553

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<210> 9066

<211> 545

<212> DNA

<213> Homo sapiens

<400> 9066

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gagacagagt ttcactgtcg atgcccaggc tggagtgcaa tggcatgac ttggctcgcc   60
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ttacagacat gcgccaccat gcccggttaa ttctgtattt tcagtagaga tggggtttct  180
ccatgttggt caggctggtc tcgaactccc gacctcaggt gatccgcca cctcagcctc  240
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ccctcctgca accacagcaa aggagggacg cagggtgtcaa ccctgaagga cacaagaat  420
gggaaagggg aaggccgcan tgggagaccc gtggcatttt cngagagatc ccgatgaac  480
gtncaggaac nggctttgac tnctaagagg aggggttccc nccaaggga agggggtttt  540
cttaa                                             545

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<210> 9067

<211> 557

<212> DNA

<213> Homo sapiens

<400> 9067

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acaattttta atttttttta agacagtgtc tcactctgtc gctcaggctg gagtgcagtg   60
gcgcaattag aactcactgc agcctcaacc tcctgggctc aaacaatcct cccacctcag  120
ccttctgagt agctagcact acaggcacac gccaccacac ccagctaact ttttgtatit  180
ttttagaca gggtttcacc ttatttctca ggctggctct caacttctgg gctcaagcaa  240
tccaccgccc tcagtcaccc aaaatgctag gattacaggc gtgagccatt gcgcccagcc  300
tcaaaactct tctacctaaa atcaccttca gagccatgct agaaaattag tatcattcct  360
ttacaatcgg aatccaactt ggccactaaa atgtttcctt agacttggtc ctaaattgatt  420
tttggattgt ttcaaaacct gaaaaacacc ttacacaggat aaagattaaa gaatgggcca  480
ctggatctga gaacatttca aaaagaagtt ggacttttaa gcttttgcca attcnggga  540
aaatggcttt ccanatt                                     557

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<210> 9068

<211> 502

<212> DNA

<213> Homo sapiens

<400> 9068

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aaataacaaa atatatttcg atatgcacag ttttaactga ggacacacaa gccttcctcg   60
ggctgcaggc ccaccgccct cccagtggga ttacacagccc ctgcggagtt tgctctcag  120
cacaccacac acgatcgggt ataaaacaca ttctataaac acgttctgat gcaaactgtg  180
tgtccataaa tatatattta tgcaagttcc tcccaccacac tgcagggccg tacagctctg  240
gggacaggag gtcacagccg acttttaaacc gcaggttaag tagaagggtg caggtcaaatt  300

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agaagttccc gtgtgattgc atcacccaac ggcactgttc tgtcatcagg aaatgctgag 360  
 tgcccgccgt ggccgggtgg gcgcgggcgg tggtcagacg ctgctctgga gctggctatg 420  
 gcaaagaaga ggacgcccag caccttgtac aggagcccca tgatgaagta ttgtanccgg 480  
 ntnatgggcn natnttgna cc 502

<210> 9069

<211> 543

<212> DNA

<213> Homo sapiens

<400> 9069

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 cctgtcctat atgcgctcta ccagatgact caattatatt ccatccatcc atggaatcct 180  
 agacaatcat aaaaggacat ttatgttaac atggaaagtg aagatacgt ttgaagaata 240  
 ggctacaaga gagaatacat tacacaatcc tactgtctgta taaaacaaaa catctggaag 300  
 aatctatgct taaatattaa tagtgtgtcc cgcaaagtgg taggataata gtgactttta 360  
 ttctttttac ttatctctat tttctcatgt ttctgtaatg aacatgtttc ataaaacaaa 420  
 atgggtctgn tataaaaaatc tgaaaacttg gttttgaaag agagcagtat tacaggctgt 480  
 aagtggcaaa taaaatttna tggtaaata tccgcttccg gggaaataac cccattntta 540  
 nta 543

<210> 9070

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9070

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 ttactgtact agggacattt gtggcttttc cacaatgaga cttagtagag aaatgacagc 180  
 ttcccttggc cctatcctga aatacactaa ctagctcttc tctgccaggg ctaccgtttt 240  
 ctccctaacc tttgcagatg tatgtatcca tataaatgtt tctatttcaa caaactgtag 300  
 aaagtataca gtctgtacag ctccccttat aatgctatta cctgatgatc ctgactacaa 360  
 gttggaatta tctgcatact tggcaaaatt caagtgtggc tgcctatgcc tcgagagaat 420  
 gagcagcaaa ccagcccagt cctaaattcg aatagcagct cttaaagaga atanggagct 480  
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 ctaccaggcc attttgaggg ga 562

<210> 9071

<211> 549

<212> DNA

<213> Homo sapiens

<400> 9071

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 tctatgcgtt ccctggagag ggagcaactt gctaaggtac agtcctgtcc attggcatgg 180  
 atatttattg ttccacatgt tgggaaaacc atgtgcaata aaaatcaaac atatgaaaca 240  
 atggctgtca ttgtaccaca gtatacattg tatcttgggtg aaggttctta aattactcct 300  
 tggagtttcc taattcactt caggaaggat ttgttgtgtt ccgtctttat gctgtcactt 360  
 gcaaacactt ttgcttttgc agttcttgta ttagatcttc atatacttgc aaaaagaggt 420  
 cctcttcaga ttttgntcca tccaggtcac aacttccatg tgatgtcctg catttcttgg 480  
 ctgnctttag atcctgggca cacatnggcn ttaaaagatt cccgaaagct tggaggntaa 540  
 aaanccttt 549

<210> 9072

<211> 494



<212> DNA

<213> Homo sapiens

<400> 9072

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cttatggatt ctttattgaa tcacaaacaa ctcagggcac caggccccag cagctgcatt   60
agaacccatc tgggattgtg aggggactgg agagggaggg gggagaagac ccgctctccc  120
tagcttttca ctatatagag taaaaacatc agaaatcacc ccaagagaaa ggacatacca  180
aatgcccacc agaagggccca gggactgcaa gccaccctga gcgcaggagg gtgtggtgaa  240
gggtggtatg gccccgaaat ttgtgtgtgt cccccactcc ccctgcaaat tcacattgga  300
attctcacc ccaaggtgac agtattagga ggtggggcct ttggagctga ttgggtcatg  360
ggggcggtgc cctcatgaac agggttggag tccttataaa agaggcagga agaggatgca  420
ggcgttgacg ttgntgtana aagtcaggcg ccanatgctt nccgtcaccg gcnggagccc  480
tttgnggggg aaan                                     494

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<210> 9073

<211> 534

<212> DNA

<213> Homo sapiens

<400> 9073

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aagctatttt aagtataaac tctattcctg aatatcttca gatactttct gctagttcaa   60
ataaactcac acagacatta atccaatttg aataactaca tatgaatgag gctacagtat  120
tattcaatcc agagtgtgtc acttccgttc atgaaggctt gctatgcata aatataaaaa  180
tattttatct tctgatgctt tcatttttga agcactccct tcaaaggatg taaaaaaata  240
ttaaataaaa gagctttcaa agtgttctgt taggctatga tttagggggg agatgaatgg  300
aatggatat tgatagttat ttaactggag atctttgtgg tgatatgtga aagtataaac  360
taactccaac aaactcgttt ttccctgaaa cttttggtgt aaaattatat attattatta  420
ttttgagaca gggctcttgct ctgttgccca ggccaggctg gaatgcaatg gcatgacctc  480
ggntcactgg ccctggcctc cgggctcaac gatcttccat tcagnccant ccan          534

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<210> 9074

<211> 565

<212> DNA

<213> Homo sapiens

<400> 9074

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atatctatta gtaagattag caaagatact gttgctatTT ttatatttgt ccttttaaaaa 60
ggtagggccct tctccactta cttccatata cctagagaaa tagatatatg tactgttgtc 120
aaaaaaaaatc aaacacacaa atactggaat attaaaagac aggctcctca tttctttctct 180
tcctcatcct ggtacacagt gcccaaaagc tttagaaatg ccattatgaa caatagcttt 240
tgctagtTgt taggaaagca atttatgagt tgggaattat tgtggaagac ttgatggatg 300
attatagctc tgggtcacta acttcttttt atgaaaacat gaataatact agttataact 360
caaagtcaaa atagtgtaaa agctgtggag tgcttttgta gggggatatat taaattgccca 420
gaatattgca gaggcTcatc ttggaacaag aagtagaatg ctggttcagt taagaggact 480
gggctggttc aaggcacaga ctgntcantt cgcatnacaa gtggtggctg ggggttttca 540
tcaggcatta ctaatgggna tggga 565

```

<210> 9075

<211> 381

<212> DNA

<213> Homo sapiens

<400> 9075

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aaatctcatt tctgtttttt tattgtcttt tatgttaaac tttctacaaa aggatgtata 60
aacgggtaag taganaatct ctatctacaa aatgttttct cttttaagta ttacattact 120
tggtgtacat ttaatagact gacatatata agcacataaa aatcatttta cgtaatacgc 180
tgcgaaatac gttgactcct cctccgcctc acccctgaan tgccTcctcc tctatcctcc 240
ccatcacttt catcatcttc tgtctctgct gctgtattat ttttagggnt gcctccnccn 300

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agcagtgagg tnattgcitt gtccnagca ttgtgctag ctgaaactcc cttcttctt 360  
cttcttcac aggttccaaa t 381

<210> 9076

<211> 568

<212> DNA

<213> Homo sapiens

<400> 9076

ggtatttgca gaatttagct gagactgtta caagcggttt atcaaaataa atgcttgatt 60  
ggcttttagca gttttttcgt aattgaaaa ataaagaaaa aagagttttc taataaatgg 120  
aggagagag aggttaaata ctttaattac taacttgcaa aaagatttcc atttgaatat 180  
ggaaacaatg taaaggggtc cctaattttt gtgggactgg aatcactcca gaggatttaa 240  
tgatactgct gggcaactga aactgtgcaa ctgaataatg tgatttctaa gcatatttcc 300  
ttaaaattta agtgctaggg aacatttaaa aatgggttact ttaaaaggaa ggttgaacat 360  
gcnaatttgt aggggagagg aattaaaaca gtgatttctt tcaatgatac atttttcatt 420  
ttctatttta aaacgaaaac catttacttt tgagtcaaca ggcatgtgac anaaagtgct 480  
acatanaaan aatttcccca ccaaggactg cctggatgtt acttgaaaaa cncaggtta 540  
attatttctc cncctttaaa acatactt 568

<210> 9077

<211> 343

<212> DNA

<213> Homo sapiens

<400> 9077

gtgtttcaaa gataatttta ataacttttc ttatgaatca gttcccaata tattagagac 60  
caaccatcat gttcttaaaa ctttgtnact tgcagtcnaa tatatggatt cnatatagta 120  
caaacatttc cctacatcaa tcaccttcag ttggaaagtg cctctccnta aaaaganatc 180

aaaactcacc ttccaggtag tgattactgc gtnagtttca tggaggaaaa aaaaatattt 240  
ataaatgtga aattgcctct aaacaagggg naggtgcatt tccntcnctt gtttaaaaca 300  
ataacatgaa gatcaccng tttgtcttc tccngtgaaa agt 343

<210> 9078

<211> 562

<212> DNA

<213> Homo sapiens

<400> 9078

gagagggagt ctcactctgt tgcccaggct gggagtgagc tgggcgcaat ccacctcctg 60  
ggtttacgcc attcttctgc ctcagcctcc cgagtagctg ggantacagg cgcctgccac 120  
acgcctgggc taattttttg tatttttagt agagacgggg tttcaccatg ttagccagga 180  
tggtcctgat ctcctgacct tgtgatctac ccgcctcagc ctcccaaagt gctaggatta 240  
caggcgtgag ccaccccgcc cggccatgtt tttcatctta attcttctat tgattaaaat 300  
gtgttctgta aactagaata tgatatcgaa gtatgaagtt caagtttctt ctttcagttt 360  
cagctgatag caaataatta attataccag aatgaaaagg cagaactgct ccaaatgcac 420  
aaaacttanc tagcactaaa anaaatactg aattttcccc catagtatat aatattttat 480  
tggaacaaa aatattttaa tgaatttcnc agctatatatt acncataggg tncgcggan 540  
aaggaaanat tgattacctg ac 562

<210> 9079

<211> 525

<212> DNA

<213> Homo sapiens

<400> 9079

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gctcactaca gcctcgactt cccaggctca aatgatcctc ttgactcagc ctcctgaata 120

gctgagacca caggcacatg ccacgactcc cagctaattt tttttttttt ttttaaatta 180  
 gagatgaggt ctcactttcc tgcccaggct ggtctcgaac tcctggcttc aagcaatcct 240  
 tctgcctggg ccttccaaat tgttctaagt acaggagtga gccattgcac ccnnccagga 300  
 aacccanatt canaaaggat atctgtctag agaaaaatct cattcagtga atttaatact 360  
 tacatacaac tatgacttgt aagtccagaa gttttagggt aagaaaacat gtnnccattg 420  
 tncccaatgg agaatttaaa gctcaatgtt ttttggtggc tccaagatca agccaccatg 480  
 tttatcacct tatcatanaa accaaatttc ctgaanantt gccc 525

<210> 9080

<211> 347

<212> DNA

<213> Homo sapiens

<400> 9080

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 ttcagtcaaa atagttatct cacagggtgaa accactaagt agcttacttc ctacctttta 120  
 aattaataaa gttacagtca gccacattgc ttgagtcttg ccaaaatctt tagagaaaca 180  
 acacaaactc agacatctaa gtcagatcaa attanagccc aatatttttg atacttttat 240  
 tgtatatgac tagttttcta naaaactatt ccanaanata cagtcttcct tccanaaaat 300  
 acagctttac tgccttaag tgcctaata ttttcnagag gaggagc 347

<210> 9081

<211> 520

<212> DNA

<213> Homo sapiens

<400> 9081

ccatttgctt ggtaaatatt cctccatccc tttattttga gcctatgtgt gtctttgcac 60  
 gtgagatggg tctcctgaat acagcacaat gatggatttt gactctatcc aatttgccag 120

tctgtgtctt ttaattgtgg catttagccc gtttgcatth aaggthtaata ttgttatgtg 180  
 ttaatctgat cctgtcatta tgatgctagt tggthatttt gcctgttagt tgatgcagtt 240  
 tcttcatagt gtcgggtggc tttatagttt gttatgtttt tgcagtggct ggtactggtt 300  
 tttcctttat gtgttttagt ctgccttctg gagctcttgt aaggcaggcc tgggtggtgac 360  
 aaaatcgctc agcatttgct tgtctctcag gattttattt ctnccttgct aatgaaagct 420  
 taattttggc tggaatatga aaattctggg ctgaaaatcc tttccttaan aaagttnaat 480  
 attgggcccc cctcnaatc ctggnthtgt tagggthcca 520

<210> 9082

<211> 454

<212> DNA

<213> Homo sapiens

<400> 9082

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 ccctanagag tggggatgtg ggaaacggag ggtaattaat tctttagtca ctggttcact 180  
 gctgaatagc cttgggtcagt tttggctctc tcctatttta gggggaaaaa tatttttgth 240  
 tctttttttt aaaaaataaa atgttcgcac aatggggaga aaattgctth aagtgttaca 300  
 ccttagccaa cagagcccaa actccgtgtt tccgttctth ctctttcggth ttctgctgaa 360  
 ggctggtgac aactggcct cttgtcagtg gctgccggca ngggccagga aacaaattna 420  
 aactgcanca cagctcantic caaaaanccc tggc 454

<210> 9083

<211> 527

<212> DNA

<213> Homo sapiens

<400> 9083

acataaatta acccatttat tataggccag tgatgtctca aagagtagag gagcgtctac 60  
 tggcttttca actccttcag tcttctgatg gcggacttta ccgtgacagc ggaagtggta 120  
 ctggaaagaa agattcagtt tccaacataa ttaagcatgt taacatagaa aatggcaaata 180  
 aagtaaactct gcctcgtttt tgtgttaaag tcgcttccca aattttccta gaaagaatta 240  
 tactgagata gactgctcta ccaatacttt gctgcagtca atccaaagat ctaaccaaca 300  
 ttagattact cctcggaat tagtggcttc taaactacat gatggcatcc tttaagaagc 360  
 catgccttca ggatcttgca gaattngaca tacaatctca tgcactgat ttctcaaccc 420  
 agagttgctt ttttttttat aagttactcc agtttgtgga caagccangc tttaactccc 480  
 ccctaccctt ccattgaaaa aaaaaattgg gtcctaaaaa ggtngaa 527

<210> 9084

<211> 331

<212> DNA

<213> Homo sapiens

<400> 9084

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 tcgggaagtg cacacaaacc gttgtctttc ctttttggtt aaagaaaaaa aactttgtna 180  
 tcaatatccc gtcataant aaaagtggaa aanaagaaac ttgactgctt tcactctggcg 240  
 ttttggcatc tcctctccca ttcatatgc acagtttatt tgggtnatgc taccgtcacc 300  
 agcanaacac ctgtnagtna aaacnaatgt c 331

<210> 9085

<211> 456

<212> DNA

<213> Homo sapiens

<400> 9085

gagaaaaaaa gcctgtcgcc caggctggag tgcagtggcg tgatctcggc tcactgcgac 60  
 ctctccctcc cgggtccaaa cgattcttct gcctcagcct cccgagtaac tgggaccata 120  
 ngcacgtgcc actatgccc gctaactttt gtgttttgag taaagacagg gtttcacat 180  
 gttggccagg atggtctcga tctcctgacc ttgtgatgta actagtattt cttatgccct 240  
 tattttgtgc taggcacagg gcctcaccca ttattggcac tcggttaagga ttentgggat 300  
 taatganaag ttaacctaaa tcttcaccaa aggcccctga ncttcccctc gattcacata 360  
 caanggactg gggctctgaa aagtgggctg tgatgcgccc ctggaaaacc cacnaatggg 420  
 cctgcanaac tgattgggaa ggttcatgca nggnca 456

<210> 9086

<211> 304

<212> DNA

<213> Homo sapiens

<400> 9086

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 ncagggaaca gtgtctctga agtgggtctg gcttcacagc tgattgcggt tccgcttagg 180  
 gatgatcttc cggtaggttc tgcgctctga aatgttgcgc ttcaccttgg ccgtgggtggg 240  
 ancctcatcc tgggtgcangg acgggctcga ntgggacttc ttcangctga ncttgggctc 300  
 ccga 304

<210> 9087

<211> 440

<212> DNA

<213> Homo sapiens

<400> 9087

aacaaatgan ctgactgtta taaagtaaac atcaaggaat gtaaaagcca atgctccact 60



ctctcagcta cacatggagt cagtgtgcc tgcaaagaac agagcangcg ctggcagact 120  
gaccttcaca gaccatgcta aaaccctctg aggaagtgcc tggatgaatgc tctggttgat 180  
gagattcgag ccattatggt accgancagt gtgcttctta cctataattc cactgtcctt 240  
gctttccagg gtggaactag ggctgcta at ggtctcacag ggacttttgt tggctgccgt 300  
cttgctgaca canctattca aggttgaaca ggggctatcg gtgctaggan atgcggtgct 360  
gcttggttagt gtggagcaag gactgatgcc ttgactcana nctgtgcaca tggtttcatt 420  
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<210> 9088

<211> 452

<212> DNA

<213> Homo sapiens

<400> 9088

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ctttgccttc atgtctacag atctctta atattgttgg tcttgcacct tagatatcaa 180  
ataaagatat ctagcttgac acaaaaattg gtagctgcaa ggtaagctg tattagtttg 240  
atgatgggcc aggaaatgat atattttcta aattttgtcc ttaaattattg gctgtaacaa 300  
atgctgatat agcaaaaagt nagcttctat tagacagcaa ganggaaact tgagtgaatg 360  
aatgcaactt acctccaagt cctcttaaag gaagtaaaaa aataaatact gtgttttacc 420  
agtgtcccccc nccaancatt attctnagen tn 452

<210> 9089

<211> 540

<212> DNA

<213> Homo sapiens

<400> 9089

ctaatttaat tctttatcat tcaagtagag agacaggcat tttccaaagc aaacccaacc 60  
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caccttggtt ccaggcatca cgccagtcac tttatttcca tcatcatcct tgtgaaaaaa 180  
tggaagtctg ganaggtgaa atgatgaagg caatctggcc acaaattctt cttctggatc 240  
ctgctcttca gggcatgcat ctcccatgct gaaggttaaa atgggggtca tttgccaaca 300  
aatttggtan tccgcttctc cctgaagctg ccatgccctc tanccgggtcc cgggttgga 360  
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ctcggttaat gggctacttt gcccaccgc acngcaattg ggggctgggg caagatctcc 480  
tgggccaatg ctctncccc ctnggtaggc ggggtcccc ccccttctng ggcccaacgt 540

<210> 9090

<211> 588

<212> DNA

<213> Homo sapiens

<400> 9090

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tatacaatat aaaataaata catttacaca aatggacatt tgctggagca cacagtatgg 180  
tacacatcac aaaaatatac aattgattgc tttacagatg tgaagcccat ctacagctat 240  
agacatgggt ttattattat tattattatt tttactactg gctataatgc aactcctgga 300  
ttattataag cagtttaaatt ttttgtcct tttacgatct ttgcacataa gactgccata 360  
aaatgttttc ctaggcaggt aaacaganac gcitaaataa ttaaaatata atcaccaaca 420  
cccattttct ctcttataaa aaaaatanca gttttaaatt ttttatatct tttatgttan 480  
catttaaag caaaatatgg gaataaatac aacaatctgg tttgattgaa acccatntt 540  
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<210> 9091

<211> 469

<212> DNA

<213> Homo sapiens

<400> 9091

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ggaccacccc ctaggaaaag gtgtangaat agaagcaatg gcattggcgc tatantccat  180
ggggangaag tgcctgatgt gcctggcccc taggctggcc ccaccagag cggaggagtg  240
cctcagcttc atcagggtga aactgganaa aaantttctga gcctggatct ctctgccctg  300
ggtcagcacc aaaagaaaac cttccttcag cagctcccag ctcttcaca cagaaccac  360
gcacaggatg gggagtccaa tcttgccctg gaacaagacc gggatcaatct cgggcaacac  420
tgctacnatg tntctgcccc ncatctcccc ancctcctga aaatatanc  469

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<210> 9092

<211> 555

<212> DNA

<213> Homo sapiens

<400> 9092

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aaatatacaa cttgctttta ttaaattgaa aaaaaaatcc ccaagangca gatatcccag   60
tagtttttagt gaaaacaaat ttaatatcat cttgtttgaa caaagctttc agaataagt  120
agcaattaaa ttcttaaagt agggacagaa caccaacagg ctctagactc cggaanagct  180
gtaagccgac aaatgggcat tgttttgctt aacagtttta gcttcaatgt aaatatatat  240
tattacttag aatattagca tctgaactat ataatgacta ttttatcatt ttacttgaat  300
taaaaccaga atttctggaa ctccaaata gtctttaaag tttttcaata taaacataaa  360
ctaacccta ttcctctcta catatcaaat gtgaaataac tgcacaata tatcagcatt  420
ttcacagaaa gatgtttaag gcttctggca cataaaatgt gtaatttccg tgtgacaagt  480
cntaattatn taccgaaaat attttaaatt attggtaaaa ttaattcnta agaattanaa  540
aaccagaatt ncccg  555

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<210> 9093

<211> 610

<212> DNA

<213> Homo sapiens

<400> 9093

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aatcttttat tttttattgc atacatcaat atttaacaga agaaaaataa agaaccacct 60
atgttaaact gaattacatg ttatcttctg attcttttca atgtagacct aaattttcac 120
atgtatcagt aaacacaatt tatgttctta ttaacatttt tgaatctcac ttttttgcac 180
acaatttgac atatatcaat attattgaat ggctatataa cattctgtga tagcactagc 240
aatacaccaa aatttactta accatttcca atcgttgggc tttttcccc cttaaagtta 300
tctgagtgga actgctanaa aactttgtac aaatagcttt tctttctttt aaatattttc 360
ctgggcatat gccactcaaa gtgagtatgt caaaagatca gttataaagc cctttttata 420
gtcttctaca cagtttcttt aaaaggntac taatacacaa tgctgctgct ataaggacca 480
tgcnattaaa acagtttggc taatacaata catgaactaa ttcaanttgg ctttttaatn 540
ttaggaaatt tgaatacctn ccaatgaatt ttaaaccctt naccctaaac ctttaaantt 600
gccaaaaata 610

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<210> 9094

<211> 437

<212> DNA

<213> Homo sapiens

<400> 9094

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agtagacagg gggtttcacc gtgtagcca ggatgggtgt gatctcctga cctcgtgatc 60
cgcccgctc agcctcccaa agtgctggga ttacaggcat ganccactgc gcccggcctg 120
cttcctgcca agttaaacgg catgctaagc tctcagctcc ccatgcccaa gtggacttga 180
aaggcttacc ccagccctcc ttccacagcc catcctgagc aggctgccta ctccaggcag 240

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gccccaggct gggctggacc atttaatcct cncagccctg gtaaggctga natcacggat 300  
 cccacttcat aantggaaaa aactgaaagg ctcagggggg gctgaaatct ctactctaag 360  
 gtttctttct ctcaaaattt ggtcgggaag ggggtctnct tntctctggg gcacttttct 420  
 tatcccnccc nangggc 437

<210> 9095

<211> 320

<212> DNA

<213> Homo sapiens

<400> 9095

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 aaaaaatgct agttttctccc tgagcctcaa aaaanaacag atagaagtta caggaggttc 120  
 atctcacaac aggcattttt actgaaatac taggaatttt ttcaatacaa tcagtttagaa 180  
 atacacacaa attacttgaa aaaaaaaaaa gaggaggcca gataggagct caccncttg 240  
 tccaanaaca nctgggtccc ccngcaggc tccaccgctg agggtcctga cattatctgt 300  
 cagcccctgg cctgctcana 320

<210> 9096

<211> 526

<212> DNA

<213> Homo sapiens

<400> 9096

gagatggagt ctcactctgt acccangctg gagtgcattg gcgcgatctc ggctcactgc 60  
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 actacaggcg cgtgccacca tgcttggtta attatttgta tttttagtaa anatgaggtt 180  
 tcatcgtgtt agccaggatg atctcagtc cctgacctcg tgatccaccg tctcggcctc 240  
 ccaaagtgct gggattacag gcgtgagcca ccgcgccag cctaactatg aggtgattta 300

aggaaagtaa tgggaagggtg cacttaaag cctgtgatt ccctcttttc tttatgttaa 360  
 tctggaaact tgtagaaaag ccttctcttg ataacaaatt ttatgtnact agctcaaaca 420  
 gtgatttgcc agatttactt aatcnaggaa tataatttng anggaacctt ccanaaaatt 480  
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<210> 9097

<211> 611

<212> DNA

<213> Homo sapiens

<400> 9097

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 aagtttcaag aattgtgcaa tgaacacccc atatagcctt cacttagatt catctcatca 120  
 attaatgttt catcaaata gttctctctc tctctctctc tctgtctctc tccatgtgtg 180  
 taccctactg aaaatctttt tgcagaacta tttgggagtt ttagacagct ttgcccccta 240  
 taggtcaaa ctaatttcag ctcaagaaca gaacattaac ttacataacc aatataatatt 300  
 aaattcatga aatttaacat tgatgtccca ataataccag ttatttttca gtcacttttt 360  
 tacagtcatg tttcctacta atctaaaatc caatccaaga tcacacactg catttagttt 420  
 ccaagtctcc tgagtttgaa atagttcctc agcctctctt tgactttaat gaatattttt 480  
 gaagantaca gaacacttat gaatggaatg tgttgaattt ggggtggctg aatggttctc 540  
 ncgatcagat cagtttatgc agttttgggg agaaagcttc nnaaatnata tgtgtgttct 600  
 cctggctncc c 611

<210> 9098

<211> 606

<212> DNA

<213> Homo sapiens

<400> 9098

gaccatttcc cacaatcttt tattaagaaa aattccaaac atacagaaaa gttgaaagaa 60  
 caagtacact gttcactgaa ataccagcca ctgcagattc aacaatgaac attttggcct 120  
 tatttgcttt gtgtattttg gggggaacta tttggaatta aattacacat ttcttgaagg 180  
 cattcaccta tataatccag catctatctc ctaagaatga ggacattttc ccatgaactg 240  
 cagtaccgtt aaatggctat tanaggaatg gttggtcttt gtgagggtct cacgtccagg 300  
 aacctcatca aagtgtgcta ggcccttanc agagagggtg gaacctgctc gccggctccc 360  
 tcaccttctc tcccatccca naaaggcaga aacangagggt gctgtgaata gaacagtgcc 420  
 ctttgtggtg acaaagctat ggggancctg ctgtgcatgt gccaaagacct gcagggcagc 480  
 tccccacccc ccacaggga ctttgaactg catggttttg tccncttctn cttttaaata 540  
 tctgaanttc aaataaatct tccccaaat cntctccnat tagaaacctg aatgccatct 600  
 aaaacc 606

<210> 9099

<211> 597

<212> DNA

<213> Homo sapiens

<400> 9099

aattgtttca ggaaaagttt atatattcag cactacagat aagttttttt ttaaaggana 60  
 acctttttcg ctgttataaa caacttcatt tatagcataa taaacatact ttcagtcaat 120  
 ttctttacaa tctaaagacc cctgaactaa attttatgtt gtgtcttaag tatttcaaaa 180  
 cccatccatg tcaaactgat aattttacta ttgcttgata ctatgttatt tcccttatgg 240  
 gtaaaacttc gatcagtggc caaatctgaa aagcaagaan acactcttgt catctgaaca 300  
 gttctattag gatgttggtt gctttttgaa aatattatat actaactctt aaattatatt 360  
 taaatgccag ctacccaatg gtgccagaaa nattattgca attgttttta cccaagtata 420  
 atttttaaaa taaaatcatg ttgcattgca tttttctaaa atcattagat ttataattga 480  
 ataagggtta acttacaatt ttttttaggg ccccaaaaaa aaaaaaaaac ttttttgaat 540  
 nccccctatt tntttctccc naaaaggtag ggtatttttt tgtttaacaa ccnctn 597

<210> 9100

<211> 399

<212> DNA

<213> Homo sapiens

<400> 9100

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attcaaaaca cttagtaaag gaaaaggaca caaggaaatt ctgattaaag tcttctcctg   60
ctctgtttgc aattatacat gccttcaaag tcatttgaaa gtaagaccat ttcctttggc   120
aggtatcttg tataaagtaa ctttacaaca tatgtttctt gaacagaaac ttacaccac   180
tgtcattatg ttacctatag anacaaaact actaacacaa gtaatatggg cttacaatta   240
taacacaaac ctgtgagagg gcatgataaa attaaatttt gattgccttc ttttattatt   300
atcactacta ctgtctgctc acaaattctg tggccanant ccatttcaa tccttctaag   360
antccacttc atganttaaa catatacata tanaacaaa                               399
```

<210> 9101

<211> 477

<212> DNA

<213> Homo sapiens

<400> 9101

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aaacatatga tcattttaat tacagatgat tgaaatacag tgcaacagat gagacagata   60
caatactgta ccagttttta aaaacctgaa ccanaacggn ttcgcattct agtacactta   120
cttacttaaa acaaaaattg cttagataac aaaactatac ttcaagttgt tttanaaaca   180
gttctgcgct aggaacatac aaaggaaaat gacccgttgt gcttctttaa aatcgaatga   240
nagtctcttc tagggctctg ctgacaganc cccccagcc tccgccaggt gaggtgcaca   300
gggcccactc caggcaccag ctcccccaa cttggcttct ctggtttgtc gaaagcatca   360
tccantccac actatgttta acagtcctan tcaccacggg gantaaattt ttctgaaggt   420
ctcatccgtg gaatccnacc gtacataata antttacccc caatcccnat tgaatcc     477
```



<210> 9102

<211> 366

<212> DNA

<213> Homo sapiens

<400> 9102

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ctcttcgtaa aggattcaaa gcaggcacag tgggtgtacac ttaaagtccc agctactang 60
gaagctgagg cangaggatt gcttgagccc aggagttcaa ggccagcctg agcaacatag 120
tgagactcca tctctaaaaa aaaataaaaa taaaaataaa taaaaaatag aactaatgga 180
aagggaaga aaaaaaaaaa aaaaaaatta aaagtgttc ggagcagtat tcctgcaaga 240
agctcccggc gcatgtatat ttacagaaaa tatgtacatg cagcaggccc anaggccacc 300
anaaggcaga gggcttctgt aacaattcaa gcctctgggc ttgaaccag ggaatgggtg 360
gcttcn 366
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<210> 9103

<211> 440

<212> DNA

<213> Homo sapiens

<400> 9103

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gtgggtaaca tcttgattta atttacaat aaaaagccaa aaccctcaat gcaaaggaaa 60
actgcagttt acacttattc tgganacat ttttaaccac agaaaatgtg cccctgtagc 120
atgtttttta atggcaagtg ctatgattgc ccanacatcc ataaactgct tgtatggagt 180
aagaaattca taaatgaana aanatttggt tttctgtctg tttctcctag gtcacgaaca 240
ggatatttcc cacaaaatgt tttgacctga aaggaagtat gattccagta cttctgggtc 300
taactcttct gaaattacac tgcaagctga aacttcnggt tacttcagcc acattttctt 360
ttatcaccca ttttccatgt ttttttggt taaaaccnc ctgctgtccc ccnttcccc 420
ccgttcncng tgttcganta 440
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<210> 9104

<211> 482

<212> DNA

<213> Homo sapiens

<400> 9104

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gggcaaatag ctaattttat ttttttcaca tattaaaacc cactaaaaat aaccattttt 60
ctaactaacc acaataaaaa ttagtganaa aagtactgct gctttacatt tctccaaatc 120
tcttcaatgt ctgatgacag acnaaagctg gaatcttgta tctgcttttg cattcagcct 180
attacaatat cacaccanat agcctcttga aaactcctct gcatactcat gaaaaaatga 240
gtgaaaaana taaatgatgg ctgggcgttg tggctcatac ctgtaatccc agcacttttg 300
gaggctgana tgggcagatc acttgagctc aggagttcca gaccagcctg gccaacatgg 360
tgaaaccccg tctccactaa aaatacaaaa attaccangt gtggtggtgg gtgcctataa 420
tcccanctac tcngggaanc tgaagtagaa aaatgcttga acccagttgg gggaagntgc 480
at 482

```

<210> 9105

<211> 530

<212> DNA

<213> Homo sapiens

<400> 9105

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aataaagaca aagtcttgct atgttgccca agcttgtctc aaactcctgg tctcaagcaa 60
tccttctgcc ctggccctcc caaagtcttg ggtattacag gtgtgagcca gcactcctgg 120
cccatcacag tcttaaaacc aaaagtcttg tgtccgagga aaaccangag tgattgggtca 180
ctctatttat gactcatagc acttacaggc tacttcggca gggacttggg gtaccctgt 240
tcttggtatg cacatcatta tcagcaacag gaacagttct ctganccctg gcccctggag 300
aatctctagc ttagctatct tagacttggg gtcaaaaaaa aaaaacctct tgcccaactc 360
agcaacacca gacaggggcc tcatatcttg gctcgtggaa agtactttta taccaanccc 420

```

tctcctaagg gcataagaac caacattccc attctgggga aanaaaaagc agtncccctt 480  
ggaccaagt actgggtcct gccgggaatc ctcccccccc aggggcnnngn 530

<210> 9106

<211> 511

<212> DNA

<213> Homo sapiens

<400> 9106

gagacggagt ctgccatgt cacctaagct gaagtgtgt ggcacaatct anggtcactg 60  
caaccttcac ctcttaggtt caagcgattc ttctgccttc ccctcccaag taggtgggac 120  
tacagccact acgcctggct aatttttttt gttttttag ttttagtaaa nacagggttt 180  
caccatgttg gccaggctgg tctcgaattc ttgagctcaa ctgatctgcc tgcctcagcc 240  
ttccaaagtg ctgggattat aggcataaag ccactgcgcc tggctaanat aatttctttt 300  
tatattagtt gagggtcata aaacaaagtg aatgcttatt aaagangtag aaaaaataaa 360  
gtcattaatg cacacagagg ctgaagattg tgattttata naaatgtaag tcataatang 420  
aatgattatt actaacttcc tangtatacc aacataccag tgcttacaga tttcttacta 480  
antctgcct gttgtttttac cnccgttacc c 511

<210> 9107

<211> 535

<212> DNA

<213> Homo sapiens

<400> 9107

gagttggagt ttgcctcttg ttgcccaggc tggantgcaa tggcgcaatc ttggcttact 60  
gcaacctcca cctcccaggt tcaagtgatt ctctgcctc agcctccgga gtagctggga 120  
ttacagacat gcaccaccac gccagctaa ttactgtatt ttttagtaaa nacagggttt 180  
caccatgttg gccaggcggg ttttgaactc ccgatctcag gtgatccgcc caccttggcc 240

tcccaaagtg ctgggattac aggcatgagc caccgcaccc ggcctathtt ttcttaatta 300  
 catatgtaaa catatgtgtt ttctaaatac atatagtatg tatgtatgct gtatctgtat 360  
 ttctatctac acgtatactc aatttggtat tcggaaactc tatctacatt ttgatcagtt 420  
 ctatgttatt aaataattgg ctgctgtccc taaacaaaaa tataaggtaa aaaaccgaaa 480  
 aaaaaatntt taactnccgn aaaaaacaac ttttttaatt ttgacnctn ccaat 535

<210> 9108

<211> 543

<212> DNA

<213> Homo sapiens

<400> 9108

atttatccag tctttattat tgaaacactg catttccaaa ccacaacctt atttatccag 60  
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 tgaaacactg catttccaaa ccacagtggg ttctactaac aaagtgtcta cacttcattt 180  
 ctccattaat tacaacatt tcagggtaat tacacttaac actttathtt gtatcagctg 240  
 accctcacca caatgcaggg aggtaggcca tcatgccctc tatttgtttt cccctaaag 300  
 gagaaagtg anaaacaagt ttttgcaat tatacaaata ttggtgaaa ttcagaccaa 360  
 atctgagagg actactgatg agttctttc actatagaca ttcatctat ccaagaaatg 420  
 gggaaaaaag gagaatggaa gatttcttc ctgctttaat tggacaattg aaatacnaga 480  
 atgntgaccc aaaataccn caaaattgtt tgaaaaattt aaaatttctt tttttncccc 540  
 cgn 543

<210> 9109

<211> 434

<212> DNA

<213> Homo sapiens

<400> 9109

gagaactgtt aattgattac tttatttcat ataaaagtta cattgaaana anangttgaa 60  
aagtcaagta tacttgattt gcacacactt gccaaagtctc acaggattca accacttgga 120  
taattgtttt attgataaca ggatatacat attaaaagcc tcacactgaa gcccacacgc 180  
atgtccaacc cagacaacaa tgtgcaaagtg aatatgcana acaatctcgg aaactggcgt 240  
ctccagnatc acccacactt tgtccctctg gctgtgacgc agctcttccc ccaacggcgc 300  
acacgcttct gcggtgacca agtccacttc caaaccacct gcaggtttgc tcgcttggct 360  
aggacggtgg ctgangtang tccctttgtg gttttgcac ancagtggta aaacctgat 420  
tcngatgggg tnca 434

<210> 9110

<211> 546

<212> DNA

<213> Homo sapiens

<400> 9110

acattattgc acagagattt ctcatcaatg ttcttcagtt tttatgtctt ttcctaaatg 60  
tgaataagtg ctatggataa aatacaaatg tagaaaataa cagcagcatg atttgtcaaa 120  
gttaatccct ataatttagt aagaaaaaat ggatataaac aaaataagtg ctctttctaa 180  
actgtactaa attttcaaaa atattgtttt aatgcagtga aggtcctgaa aagcctattg 240  
aaagcgatgc tgagtcctgt tttcaaaagt gtcctgtttg ggttttcttg gtgaananca 300  
gaatttcaag tgaagtaatc gacggactaa tttaaaacaa aacagccctc ggcttccta 360  
ttggcctgtg agggcacccg ctccgggacc ctgacctggg aggcancgaa tgggtgggggt 420  
gcctggcccc catctacacg tacacagget ggcagccttc catctgatcc accanacag 480  
aactttctaa tcttaactcc cnaccgtna aactctgccc ctnaaagntt ttggctccaa 540  
agggggt 546

<210> 9111

<211> 435

<212> DNA

<213> Homo sapiens

<400> 9111

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ctgagagcag aggcttttatt tacaatgaca ttcaaacagg atttagcaaa ggatgcctct 60
tcctgctcgc atcttancag catgggttgt acttcataaa cagaaaagag aaatatacctg 120
ggagcaggaa gtgaactctt ttctcagata atgttctcta aatcccaaca cgttccatgc 180
tcccggctct tancaggtag ttggtggaca cttggttata gcagctgggt gccanatgcc 240
tgcattctac tgaggaatgt gttcaggga aatgtcnaca ctggccggga aaagcatcag 300
gctttcacct cactcatggc ctccataagg cgaacgctgt ttgttgactg ctgtcgtcca 360
ggaaaatnaa cctgtttcct ttctctctgc ccaggaaacc ggnaggntga natctcnaaa 420
attcacccc cccca 435

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<210> 9112

<211> 552

<212> DNA

<213> Homo sapiens

<400> 9112

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gaaccttttt ttttcaggta taaacattca ttcaatccaa taaagacatt ttagaaaaaa 60
gtcaacctat acaatttatt ttatttttcc tataccttgg ctaaacaaaa tatatttggt 120
gatactgtaa aatactaagc attttcagta aaactggcaa tcaaatacag cttaaccttc 180
ttctgcgtga caactgagga ttttaattgg aaaagtatta tagtctataa acaggaatac 240
ccaaaacata tttaaaccac tcgagcactt tgatttttcc atgttcttg catctagatt 300
gaaacacatc acaggaaatt tcaaagacca acggctgaat atttttcatt tcaacatttc 360
cagtggcatc ctacaagaga actagcactc acaatgaagt catctgaatt ttctttaaat 420
cgtaactcat ttttaatttc taaacagggt tggcctattg atttaaataa nanaattatt 480
atttccataa aatgaattta ggtccnttga aatttccgtt tgaaatctta tccaatacct 540
tanttcccgn ca 552

```

<210> 9113

<211> 320

<212> DNA

<213> Homo sapiens

<400> 9113

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gctgttagtg tttatttgaa gtgactttga aggactgata atattatggg gcaggcagac 60
tctcactatc ttaaggtggt tcgcctgagc cttcttaaag tggtacccca ggccggggcgc 120
gggtggctcac gcctgtaatc ccancacttt gggaagccaa ggcaggtgga tcacctgagg 180
tcaggaattc nanaccagcc tggccaacct ggtgaaaccc tgtctctact aaaaatacaa 240
caacaattan cggggcgtgg tggtgggcgt ctgcaattcc agctactcgg gangctaaan 300
canganaatc acttgaaccc 320
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<210> 9114

<211> 392

<212> DNA

<213> Homo sapiens

<400> 9114

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gtcagacaaa aatttaactt tttatganat ttcagttttt gaaatacaca actcttacag 60
cacaaacaca gtatttacat ttcaagttct ttgtacaaaa natgtatgcc attttggaan 120
aatattgttg anacatgat ctaaaatacc tgtcanantt actcatggaa tctgctcttc 180
acaaatccat tgtattatga cataaaatat ggctagacgc caaggtttta ccatacataa 240
aaatactaata tctcggctgg gtgcactggc ttatgcctgt aatctcagca ctttgggang 300
caaangcagg tggatcacct gaggtcagga gttcaanana agcctgacca atatggtgga 360
aacccccgtc tctactaaaa atacnaaaat ta 392
```

<210> 9115

<211> 302

<212> DNA

<213> Homo sapiens

<400> 9115

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ctacaaataa agtgttttat ttacaggagt tgtctctcca ggtcccagct ccctgccacc 60
cccaccccag ccccaggag aagaaggcgg atgccagagg agctggcaga ggctgggcag 120
gtcctgagtg ggccaggcta ggccaagaga gaaggcacga ggccctgggc gccccantcc 180
cagggcagaa gccaggcctg cctggagaag gcagcacggg gtcagctctc aggggtcagg 240
ctgggttcca cgccgccgca gctctgctca taanacagtg gggcctctgc gggaanaaan 300
ca 302
```

<210> 9116

<211> 491

<212> DNA

<213> Homo sapiens

<400> 9116

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aggaaaaatg aaactttatt actacaaaca tgagagctgc atacattcta aatcaaattg 60
ttgcaactta taataccaag aattaaatgt gaatcctact taagaatatg ctgagctggc 120
cangtgtggt ggctcacgcc tgtaatccta gcactttcag gctgaggcag atggatcgcc 180
tgaggtcagg agtttgagac cagtgtggcc aacgtggtga aaccccatct ctactaaaaa 240
tacaaaaatt agctgggtat ggtggtacac gcctgtaatc ccagctactt gggaggctga 300
agcagganca ttgcttgaac ccgggangcg gangttgcan tgagcccaa tgcgccacc 360
gcactacagc ctgggtgaca agggcgaaac tctgtctcat ctaaaaaaaa aatatgctga 420
tccngtcntt ttgaattaaa ctctccctgt gatatactgt tctctatncc atttcaaaaa 480
tnangctggg c 491
```

<210> 9117

<211> 546



<212> DNA

<213> Homo sapiens

<400> 9117

```

cagggtcttc tgtagctttt gtatctcatt ttgaagttgg gtactttcac cttggcatct 60
ctcctttagt actcgggcct gttcctgaag ttactagtg agggctctct cttgctcttc 120
cagcaactgg gccctctccc tctccatctt ctcagtcaat tgtttcacat gttcttgata 180
actcttctct ttctcttcca tcctctgctg atactttatt tgcatttctt ccaccatttt 240
tgttgaagcc tgtgcanatt cagcttttac acattccact tcaatctctt ttctcttttc 300
tgtgagaatc tgggtctgtct gtaaaattgc atcggtcaca gactccttgg atttcaagta 360
tgtctgcaga atctcttcag cctgtatccc ctctcttggg tcctcataat actttttctc 420
cagtcttgta ctctctgaat aaaaaaaaaa aaaccccccg gttccaaaa aattcccgnc 480
ctccattcct cctcctnaag aatgaaaatt gaactgaaat taanctnaac aacaattgaa 540
aaanct 546

```

<210> 9118

<211> 508

<212> DNA

<213> Homo sapiens

<400> 9118

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cctgcaaagt acctttaatg tgtttaaatc agcagcaagc attangacat gctatttttg 60
ccccataagt taggtgtgta gcactacaca ttagacacca agtcatccca accaatattt 120
atccatatga acagataaac tgaacaaaaa catagtcttg ataaaacctg cattcacaac 180
ctaagttagt ttaaagtaaa ttttttcaca attgagggtc gctatttagg actgttttgt 240
taataataaa aacaggaatt atatanaaga taaaacacca ttttttactg ctatataatg 300
tcttgctata taaaacatac cctcaacaag tcaaaatatt taaaaccagt gtttcaaata 360
ccaaaaatca cagctatggt actgttcagt aactccactc aaataaatgt tagtactgca 420
ttcttgaaag gaaaaaaact gcanccaagg caagaactct naattttgcn ccccaatttt 480

```

aaaaaaanaa anccccctcc tgcaactg

508

<210> 9119

<211> 445

<212> DNA

<213> Homo sapiens

<400> 9119

gagacggagt ctcgctctgt cgcccaggct ggagtgcagt ggcgtgatct cggctcactg 60  
 caagctctgc ctcccgggct catgccattc tctgcctca gcctcccaag tagctgggac 120  
 tataggttcc cgccaccacg cccggctaata tttttgtat tgtagtana gacgggggtt 180  
 caccatgttg gtcaggatgg tctgatctc ctgactttgt gatctgccc cctcagcctc 240  
 ccaaagtgtt gggattacag gcgtgagcca ccgcgccag ctgcacactg tatcattttc 300  
 atttctctcc cttgctgtcc cctctgcctc tgccttgcc tccatcata tggacacact 360  
 gtgcctgaca cacacgtca cataatctct cctttttgt tccctagct actcatcaac 420  
 ctcangtttt gcgggannaa aactt 445

<210> 9120

<211> 263

<212> DNA

<213> Homo sapiens

<400> 9120

gtacgaaact gagattttta ctgacatgca gatgtgcttt agagttaatg tttctacaaa 60  
 aagtttctat aaacaataga aaatttctag catgaagtca caggatgta aaaatattac 120  
 aatgcaataa atacaactac atcctccaca gcccaccca gacaggaata ggcagctatc 180  
 aggtttggag ggaaacactc ttgagatcgc cttcacgac cacagaaacc cagancacca 240  
 cncaggaaga nggaacnacc cna 263

<210> 9121

<211> 341

<212> DNA

<213> Homo sapiens

<400> 9121

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gggagtactt tcacgtttta tacgcaaggg cataaaatag aatgttagga aacaatttgg 60
atttttttcc ctaaaatata ggtgactatg ggctagttaa caactttcct tctctcactg 120
aaataaaaaat acatagttaa ggaataggga cgaatacata acaggtgaca ttgacagtt 180
tgggcatatt ccttgttact ttctaattctt ganaatcaca gtttgctggt ttagaggtat 240
ctganangtt ccanataaaa ggcgatggct aaatgctctt aaactttgaa ccgtgctgga 300
tgctcttaag ttaggaaaaan gaaatttata accnaaacct t 341

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<210> 9122

<211> 503

<212> DNA

<213> Homo sapiens

<400> 9122

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ggtaataaga ttttaatttc cagtagcctg catgaattgt tcccacataa aactgtacag 60
ttagtgactg aattgtatac ttaagtccca gtattttaca ttagtgagac tgaaattaga 120
ggtaaatttc ttttaacaagt gtaaggctta cctatttata aagaattatt ctgtagtgt 180
ttaagaaaaa cagatctaga gacaatccag taggctgcat tgtaaacatt atgattataa 240
atctcttagt actgccatta ttattgacag ttttgtaaan acttgtaaaa agtccagttt 300
ctcaggaata tgaaaattat cttcagaaac ctggttgggg cctttctcca attcctccag 360
ccagctgaaa tactgccaag ctacttcat gttgcaaggt gatctgcact ttcttgtgag 420
tcgcttctgc atatactcgg acaanattct ctgttncaga agggcggaca aaactcnaa 480
aaanctgttc ttctccccag ttc 503

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<210> 9123

<211> 553

<212> DNA

<213> Homo sapiens

<400> 9123

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ggcatgagag atgcaacagg ctttattgtt gcagcaacac taacatatac gccccattcc 60
ctgctgancg ctgtccccac ctcacccctt ggttgtcgat ggtgtggaac attgggggtga 120
ggggtaaaat gcctaagcan aactggaggg angcaaatgg gactggtgag ggtcgggatc 180
acctgaacca ggggtccaac agtcaggata cccgactcca tccacacagg ggcatggaac 240
acttgggttc tganttcaaa atttggcaat gtcttgacct gggttggaac gtaggtgggg 300
tctggaaaan ctttgggtcca ggggtcaaaa ttgaaaatg ccttgctcca agccccagtt 360
tggggatgaa catggaaaaa ggtggatggg antgtctctg ggttcacaat ttgaaattgg 420
ccatggatgc tctggcctga accccatttt ggggctggat gtaggtgctc ttggtccnaa 480
gttccaagct ggggaaaanc ctttcccaag ttattggggc tggntttaaa ganatcctaa 540
ttttgggcct gnc 553

```

<210> 9124

<211> 544

<212> DNA

<213> Homo sapiens

<400> 9124

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cgttnttttt ttttttaaac aattgattta aatccatgtc attttacttt atatgtactg 60
gtctctcatc tgactttang cgttttctgc ggggntgtat aaagtctcat cagaatcctc 120
agttacctcc accatcatcc tcttcctgct caaactctgg caaaggtgcg aanggtcccg 180
tctgaataaa tctctgtgan tttatcttcn aaagtacaat gcaactgctt tccctgcctg 240
agctacttct gaatcagcct tcaaattaat ctcttgtgtg tctgcataaa cttgaacaac 300
tttcatcatt tcattaaacc tttcacagtt cttgaanatc aaacggacat cgccacaaaa 360

```

ntcatccggg atttggtaat gttgggaatg ttttttctga ancttctttt tcncggggga 420  
 naaatccatt gggttcttta taattttata ataatttggg atcnaacaag aaaaggcccc 480  
 ggaaatccat acttanticct ggcaataaaa ggtaaaccaa aaaaattcnn ctttccttn 540  
 ggcc 544

<210> 9125

<211> 449

<212> DNA

<213> Homo sapiens

<400> 9125

actgagaggt aactttttat caatcaaacc acatacccca atttaacacc tttcagtgt 60  
 ctgaattcaa ctgacagact aaagggtgtt tcctgtaaca gtctgaaata ttaagtgtt 120  
 tttttgtttt gtttttaaat cttatttcan aaaacttcct cttggggtag gaaagtacac 180  
 atgaagcanc aaagtaacga aaaaaaactt aaatagggcc ttcaganatc ccacacacta 240  
 caaagattct gccaaagccat aanataagt tgaagcccag tatatgtcca gcttttctcc 300  
 tcaggacatc ttcagtgttt cttctctttt aaacaccaca tcaggttcta gccacanact 360  
 tgtgttttgg gtgtgcctgc tttgangggg ccatgcccان tgtgtctgct ggtgaccaag 420  
 accancagta atgantaacg ggcgcttc 449

<210> 9126

<211> 449

<212> DNA

<213> Homo sapiens

<400> 9126

ctttctttct ttttttgtgg gtacaacaac ctgtagccac atgagccgta tctacccagg 60  
 anattccttg ccagattgga acatggagat gaacaaagct gcttctggga agcccatttg 120  
 gaaaaaaaaag anggaactan aaagctgcca agtcaagctt ttgaagcgga nacaaagtca 180

aaagtttaga cctccctccc aatgctgggg atgggctgac tgtttaacca tgtgcacacc 240  
 aaccacagtgc acaccaggta cagtgtgaca ggggtggctat ggcctaaaac atgggttttg 300  
 caggcaggct gacgtgcatt caaattctga ctcttctga ccacacaaca tggggctggt 360  
 gatcttgact cttcnaacct gtttctttgc anaaaaaaan ggggcaataa taataccccc 420  
 tcttaagggtg gantganaat tactttgca 449

<210> 9127

<211> 501

<212> DNA

<213> Homo sapiens

<400> 9127

acacttttac agtttaagaa atattaaatg tgataactgt tcaggatcta ctttttacac 60  
 aatctcagta acgtatgtac atagtcccaa aaaaaaaaaa gcagcatttg cctgggaaca 120  
 catcactata agcaaacaaa acatcaaatg gcctgaattc taaaatacct ttggattata 180  
 taaaattaca ttgtaaagtt acaaatgttg ctcatcttg anaaatgttt gaatgtttaa 240  
 ataatgttgc cataatacat attatttcac gacattaaaa aaacaatgg tgaatacaag 300  
 gtatcatcat tttaagggtg aagagataaa gcaagtacat atacaaatcc actggaaaag 360  
 ctaagtttgg agctgatttc ctctcttgaa ttgtaaaatt tcagtaatac acagtcacta 420  
 tctactgctg gaataatgcc tgagcaattt aggttganga tacnaacnat aacaaaaacc 480  
 tgcccnata ttcaacttgg g 501

<210> 9128

<211> 460

<212> DNA

<213> Homo sapiens

<400> 9128

aggtttctaa aatgaatgtt atttgatttc atcatatatt aacagatttt agtaagttgt 60

ttttaaacta gaggaattga ggcagagaga aatgaagtcc ttttactgga aattttcatc 120  
 tcttaatgtg ttaattgatt gattttttaca catttcattt taaacatgga aatgatgaag 180  
 gttctaattg taatgagtag ttgtttttgg attgttcagg tacactgcct cttttcttca 240  
 gacactgggg ctctttttgtg gtcactgagt attactgttt tttcaagtct tcaagcacat 300  
 ctgtctttgt gatttttgcc catgcattgg ggattttacc tttacctgca aattttttct 360  
 gatattttnc ttcnanattt gatctgaagt gaganacaaa ccatttccag tatanctgga 420  
 tggaagtatc tgggggtgatg ctccacatgg cataatcccc 460

<210> 9129

<211> 479

<212> DNA

<213> Homo sapiens

<400> 9129

cttgtgaaat cattgctttt aatcttttaa tctatccatc tttaaaaaga ccctaaagga 60  
 ggggtctttt tgtccaggaa gaacaataaa aggctgtgga aatacatcca gaatatacaa 120  
 ctaaatacaa aaccaaagc agcactgaat gggcaagaga aagatatttg cggaggataa 180  
 aatggggaaa acacatcaaa atactaaggt taaaatttct ctaattaggc agatataaaa 240  
 tgacactgat gagggatat gatagccata ctcccaacaa ccaaagttat aaagcaatac 300  
 gtgtcctcca aataacaagg aaaagaattc tttctattcc tttgttccc cgccccatcc 360  
 cttgaatatt aagcatgaac actgtacatg cataaatcnc ttttacaagg gccacncgat 420  
 nanatcacac aaagtctcat ttccccaaaa ataaattctg ggtcgtgggc nccttacca 479

<210> 9130

<211> 601

<212> DNA

<213> Homo sapiens

<400> 9130

aaaaggcaaa caactttaat ggttattttg ctaaagataa aactctgggt ggtaaaggaa 60  
 ttaaaggcag antctcaaag agatatttgc acccccggtg ctgtattagc actactccca 120  
 atagtcaaga ggaagcaagc caagtgttca ctgatggagg aacagagtgt ggtaacgcaca 180  
 tgtaacggaa cattccatta tatgtataat acaggaagga aatcctgtca cctgacacaa 240  
 catggatgaa ccttgaggac attatgctaa gtgaaataag ccagtcacaa aaagacaagt 300  
 cactgtatga ttccacttat atgagatact gagaatagtc caaaccagag agacagaaaag 360  
 canaatgggtg gctgcggggg ctgggaagaa tgggaattac tgtttaatgg gtacagtttc 420  
 cattttacaa gctgaaaacc tatggaaatg gacggcggtg acngccnccc acattatgaa 480  
 tgttttaaca ttaactttct gaactgtccc ttaaaattgt gaaaacatat ttttttnnat 540  
 tttttcaac aatttnaatt tttagaaaaa aaccaacccc cccnggggtt ttggcccttc 600  
 c 601

<210> 9131

<211> 512

<212> DNA

<213> Homo sapiens

<400> 9131

aatgctgcat ttcttggttt tatttgaaac agtgcataat tttagcattt tatggtagga 60  
 ttttacactt gtcatttaca caaattacaa ggttctgctt caagttttta aaaaaaattt 120  
 aaaaattcag cccatgtgca gcacaaaaat atgcaaaact actttacatt atacacactt 180  
 tttatcaaag gaaatacaaa attctggctt gttgttttaa acaaatacaa naagcttcaa 240  
 actaaacaca aagggttaac attaattctc aaatataagt ctgcactttt gtgtttagt 300  
 tctctgaaat gtgaatacca aattcctaag ggattttaat gttttccttt gaaaaggaaa 360  
 actaaaaaaaa ttcccgtaaa caantccctc cccatcagct tggcttttcc caaccctact 420  
 cttggttccc ttaatgcan anacttgcac catgtttaca aattgggggt gggcccttaa 480  
 tcntacaagg aacaaatccc ttttaacttcn cn 512

<210> 9132



<211> 454

<212> DNA

<213> Homo sapiens

<400> 9132

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gttttgcaac caccatcaa taaactttct tttttattat taattggggg cagggtttct 60
gttcttgcaa ctgagtccta acagaaaaca atggtttcgc tgaccacacg gagagctgag 120
gacaggacaa aaaggcatga gacagctgga cacctggaga gaggtgacac aggacagagt 180
cctcaccggg ctgccctggg cctcggggag ctcaggctgc agtccctggg cctggtggca 240
cccacagcac ggcagtctct ggctgggctt cggggagccc acatgtctga tcggcaaggc 300
ttggctggcc aggcggtggg caccaacgtg gtgggtgggc agtcctgggc ttccaggagg 360
cctcctggga ctcaagctct tcagtggggg gtgcctgtca nggtgcangt gggttctgtg 420
gctacactcc catcctgtct tccctctgtg tncc 454

```

<210> 9133

<211> 502

<212> DNA

<213> Homo sapiens

<400> 9133

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ggacaattgt gaacgttggt gtccattct tttttctcc aatttcttct gcttttcacg 60
ttccattttt tcaagacctt cgcgaaatcca agcgggaaga ntcctgcgtt ttactgcgtc 120
aatttgtgga ngctcctgct tcacaggaag tgcaataggt gaacgctgac gatccctgaa 180
tgatgatggc ctttctcttc gattctgggg angtgctgga ngtcctggan gtcctggttg 240
ccaataagga ggatgaaatc caccttgagg tggacaaaa gcagcccat gctgatagtc 300
aaactggttc actggcccca ctgcaaaatt atcgggtggt ccaccaaagt tgtgattggt 360
ctggttaa at atagcctgt tgcaggggc aaattcccca ctgtcctgac tgttgctgtc 420
ttcanaaagt ggaacaatgt ccattgggcc tgggtgtngt ggcatccatg gcttaatctt 480
gaaggggggt ttttnggnt cn 502

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<210> 9134

<211> 508

<212> DNA

<213> Homo sapiens

<400> 9134

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aagtttattg tatatttatt gtaaattgtg tgcattattg attagtctgc ccaggactgc   60
cataacaaaa tacttcagat tgggtgggtt aaacaacaga aacttgtctt ttcacagttc  120
tgttttctgg aagtccaga tcaaggtgct ggtccgtgtg atttctgggg agggctctcc  180
ttggcttgcc gatggcctcc ttctctggtg cangcacggg gggagagcaa gcganccct   240
tgcgtctcct ctcanaaaga cnaatcctgt tggatgaggg cccaccctc aggaccgatg  300
taaccttaat gacttctgta gaggcccat ctccaaatac agacatgctg cagttaggtc  360
ttcagcattt gttctttaat anaattttca atgccagctt gcaccattaa gtcattgaca  420
ttcttctgta aatcctcaat gnaattccc atttcttccc attacantgt ttaagggcnc  480
ctgcttnaaa ctggaatcca aaaccncc                                     508
    
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<210> 9135

<211> 498

<212> DNA

<213> Homo sapiens

<400> 9135

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attagtaaga gagtttattt ggggattaat acataactaat ttattttatg ttagcaaac   60
agaatccacg ctagctttta tgtaattaat tctctttggt tccaagtata gatccctcat  120
gttttcctca catgatctct ctgtgacaca tttctcccct ctgacaggcc taccatgacc  180
ccatgttaaa gttgtccatc atgtcagaag angaactcac acatatattt ggtgatctgg  240
actcttacat acctctgcat gaaggtaga tgtgccactt aattgtcatt aaatctaaag  300
ancagcgggt catgtaattt tcagtctaaa cttctaattg agtgctgacc tattttttaa  360
    
```

ataaacctgt taatgggtgt tatgcttttt taccattca gatttgtga caagaatagg 420  
 aaaancnacc canctgatg gaacagtgga acaaattggc ccattctcct ganctgggtt 480  
 tntttgaatt ttigaccc 498

<210> 9136

<211> 467

<212> DNA

<213> Homo sapiens

<400> 9136

gttcctctac ttttaagctgt ttgtcaatc gggctattaa ctgggatttt aatcctttgg 60  
 gaactaagan ctgcactttc taattctttt cggaggtcat ttacctcat tgtcttttga 120  
 tcaagtttag accaatgggt atgtgtaaaa atttcttttag cttcaccatc atccttctct 180  
 tcttcatect gttctccatc agcctccttg cgttcacctt gaagcttctc gaccagctgc 240  
 tgcttgtatc ctgggganan ggtttccac tctganegg tggaangca atgccaaaca 300  
 tccgggaaaa ataaaaccac tgtctccaca tgagctggaa ctgtacgcc cttgtgggtc 360  
 tcctcacggc gatggtacga atctctgcaa aacggtacca ttgtttgcac cacttaaatn 420  
 aatgcctgtt caaaccttc aacancaaat anctctttt tcnccc 467

<210> 9137

<211> 503

<212> DNA

<213> Homo sapiens

<400> 9137

aggtaaaaa tagattttta ttttattaaa aatataattt aatgcagggt gtttgaagca 60  
 tctgtcttca tatgatggca ttagaacacc ttggtataat aaaaagttac cgtaatttat 120  
 gattatttga atttatccat tctgaaaatt aataanatct aaaactggca tgacaatcaa 180  
 natttgtatt tagtgaaatt taaaataaat gtnagccata gttaaaactg ttgctgcatt 240

catgaatgcc cttaggaaaa ggtccacagt aaaatcagaa agctgaacct ctcctgctgt 300  
 ttataggata tgtttatgct gaattaattg ccagggtttc ttaaactttt agggaattat 360  
 actttggtgg ctcnatagta aattctacaa attattttta aattgatttc ctttccttan 420  
 anctgcanga aaatatctgg caaggtgcat ttaatatattg gaaaaaaaaan atgaacngtt 480  
 acctacttta ggaaaaaaaaat aac 503

<210> 9138

<211> 468

<212> DNA

<213> Homo sapiens

<400> 9138

acaaagcagt tggggcattt attgacattt aaacaagggg aggagatcct gaacactagt 60  
 ctcgctcagt ttataaaaac ttgaggccaa actctccatc atctgtacac agcttaacca 120  
 cggncaggan caagaattcn agttaacga attgaaccag tccaaccaca anacnataaa 180  
 gggaacagg gcgtggggat ttccagtttt tcctttttaca ttacaaagtt tccaacacaa 240  
 gaagccaaca ataccccagt gctgcaccaa gttacttccc actgtttccc nagnnacagt 300  
 caattaataa tcagtagtcc aagttctaan aacatttcct ggaaaacaag gacgcacctc 360  
 ccgtggctct atgcatggcc tgccactgat gaatcaaatt cttagaacc tacgaacgtc 420  
 tgataccttg aaganaacnc ccccctaaaa tctcnnecat ccnggcc 468

<210> 9139

<211> 435

<212> DNA

<213> Homo sapiens

<400> 9139

acaaaaaaaa attttttatt aagtgtgaaa gcaaacagg tacatctatt taaatatttt 60  
 ttacatattt atagatacaa caaagacaaa taacttagca aaaattacaa gtttaaagaa 120

tagtactatt ttgaaacagc caatatagta tctgaaaata ttccatttta tccataatca 180  
 gtgagtatta tttccaaaaa aagtaacttg cattttcttg tgaaaaatat ggtttttttt 240  
 ttanatgtct gccaaaggatt tatcanaaaa gtccatcttt ctaaacctaa aaaattgtaa 300  
 tgcctttatt gaaaactttt ttacctaata ggcttttaaaa accacgtggt ttcctttgga 360  
 cttaggtgaa ttctaaatct ttacttcact ttcaaactac agggnatcga cattaacnaa 420  
 aacnaatcnn attga 435

<210> 9140

<211> 427

<212> DNA

<213> Homo sapiens

<400> 9140

atctgtgaga gattaaatat aaggactggt tttgttggt gagacaggat ctggctctgt 60  
 tgcccangca acagtigtgc agtgatacaa tcttggtca ctgaaacctc tacctcttgg 120  
 gctcaggcaa tcttcccacg gctcactgaa acctctacct cttgggtca ggcaatcttc 180  
 ccacgggtca ctgaaacctc tacctcttgg gctcaggcaa tcttcccacc tcagtttcct 240  
 aagcagctgg gactacaggc gtgcaccacc acacctggct agtttttata tttttggtaa 300  
 aaataaagtt tcgccacatt acccaggctg atctcaaact cccaagctca aaggatccac 360  
 ccncctgaaa tctcccacaa tgctgggaat aacaggtttt aaccactnt tcctggccaa 420  
 ggttnnn 427

<210> 9141

<211> 399

<212> DNA

<213> Homo sapiens

<400> 9141

ccacaaaaat gtaatatata tttaatagca cattataaag ttcctgacca aagacgttga 60

tttctaatt ataatagcac agaaatcctt tagaatttag taaacgtaat taagactatt 120  
 cagaagtaat gaaaaaccaa tatgataaaa acaaaaatcc tccagtaaag aaggaacctg 180  
 tccatttgag anaaatacaa ttgagaactt gcaaatgana caagggaaga tggcaatttg 240  
 gaactgcaat agaaataact atagcagaaa caaccattta agaagtttta gcagcaataa 300  
 gtatttatta ttctgaatga aatgtncagt tgacttttat ataaaaatcn tcnaagtgtc 360  
 atattggatt atttactatt aantttaccc cccaacngc 399

<210> 9142

<211> 490

<212> DNA

<213> Homo sapiens

<400> 9142

ctggagaatt gtacatgttt tattgggaat atattttttc ttctgaatc tgttatgaat 60  
 gcattggttg gctgggttca gtaataaata tgtgagaact ttcattaaaa aaaaatacaa 120  
 aaattagctg ggcatggtgg cgcacacctg tagtaccagc tactctggaa gctgangcgg 180  
 ganaattgct tcnacccaaa aagcggangt tgcagtgagc tganatcgcg ccactgcact 240  
 ccagcctgtg tgacagaatg agactttgtc tcaaaaaaca aacaaaacat gcacacattt 300  
 aatcaatata aaatattatt tctgcgaagt cacttcaagc tgatactgca tactccatat 360  
 atgctaaact tcacaangtc tttacctcat acctgantct ctttcctgaa cccccgcggg 420  
 ggtaattcaa tnccttgggg gtncctttacc cccttggtac tacaaccttt gggcnccagt 480  
 ncgtttccac 490

<210> 9143

<211> 542

<212> DNA

<213> Homo sapiens

<400> 9143

ccaatggaaa aatctctaaa cctcttagag ttttattaga catttcatgt acagaagtta 60  
 atctagaaaa atacatttta aaaatcttca acagaacatg ctccctgtaa caaaaccttc 120  
 caaacctgt gttttattat acaaagcaat ctacattagt angtaaaaag aaattctcaa 180  
 atttagcaat gtcattttcc atccaacatc catctaattt acagatgggt ttccactatt 240  
 catactggaa ttagaattct gtaataaatt ttttctaag ttttctgtac atattaaata 300  
 acccaaaaagg ttcctcttgt agtgcattgt ccatttagca agtctattca gtatttttcc 360  
 agtaccattc tcattacagt gatttgcctg taaatgtag ttaatatcta aaagtgcaca 420  
 cagttaactt tcccaaataa cggactattt ctgggaggaa acctaattt cacagaaaaa 480  
 gattaccant aacaatgaat tanaaaatnt ngggttgaaa gtctcctga aaaacatcca 540  
 cn 542

<210> 9144

<211> 297

<212> DNA

<213> Homo sapiens

<400> 9144

ggctcttact tgtttctgtc tccttttcac agggaacact tccacagggt ggggaacctc 60  
 ccccatgggt aacatgggtca gggctgcctc aaatctggag gctagactta gcactacatc 120  
 aganctgtgc cacttcacac tgacaggcag tgtttaanaa aaacatctca acctgccagc 180  
 caacgaaaat ggggtgacaag tcanaatgtg gggcagggat gtnttaaagt gaacagaant 240  
 gctaacaaat gcctcctcaa gctgtaanan tcacatgggg agacagtggc aatgtgt 297

<210> 9145

<211> 284

<212> DNA

<213> Homo sapiens

<400> 9145

aaatactaga aaggccataa tgaacttaaa ggactgattt gggtttaata gtaagggatg 60  
gcttgagtta ncaatgaatt aagggaagac tantgttaaa acaaaaaaaaa accaaaaacc 120  
acattcaacg aattgaagat actcaagaaa acctgcagaa aataatatga aaattaaggg 180  
gaaacctgan tgtgttttaa ggcanatta aataaagctt atgttttatg gttganaganag 240  
tcagactaat aaacaggctg tttcanacct aagttaggca ctta 284

<210> 9146

<211> 352

<212> DNA

<213> Homo sapiens

<400> 9146

cttttttttt tttgtctttt aaaaacatcg taacattaac acatggccgt tcaccgtccc 60  
ccagcgatgg gagctggcct ggggccagg gtcctccagg atcttcactc attcacagta 120  
acggttctga ccagtcctcc aggtcgacg tggatgccac aggggtgggg aaggaagaag 180  
aaattactnt cccaccttca naaaaaaaaa aaaaacaaac aaacaaacnc tgctanccac 240  
tcacctttaa aaaccccatg gctatggcg cctgcancgg gcgggggtcc atttgcttgt 300  
tcttnatac aaaaangcag aaaatcccc cttaccaaac attnnaaatc ct 352

<210> 9147

<211> 221

<212> DNA

<213> Homo sapiens

<400> 9147

gtttgttagt tancctggcc tcanatcagt cctctatatct ctggtctaatt gttgtaactt 60  
ctttttctct tgggtatntt aggccatgta tntggaaatt ngatgcatgt gaccccctat 120  
ggcacagtct gacatttctc aaattcacct canttctat ctctggttct ggaaattatg 180  
aantcagana gccccatgaa ggcttaagtn tacnggcac a 221



<210> 9148

<211> 455

<212> DNA

<213> Homo sapiens

<400> 9148

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ggaanaaaac atttgcaa attttatctg atgagggttt aatatccaga aaatataaag   60
aactcctaca actcaacagc aaaaaaagac aaccaacta aaaaatgggc aaaaatgtga  120
ataaatatatt tcccaaaatg acataaaaat ggtcaataag catgtgaaag gattctcaac  180
atcattaatc attagggaat tgcaaatcaa aaccaaactg aaatactgct ttacacctcc  240
tatgatcagt ataattttta aaaacagaaa aataaaagca ttggtgagaa tatggataaa  300
ctggaaccct actggaaatg tataattgtg cagtcattgt ggaaaggttt ggcagttcct  360
cnaaaagcta aatanaatta ccatatgttc ttggccttcc tccncctana taatactccc  420
agaaaaaaa aaaaaaggtt tttnaacaaa aactt                               455

```

<210> 9149

<211> 392

<212> DNA

<213> Homo sapiens

<400> 9149

```

aacaatgtaa atgatttaat ggtcacctga gtggtgtatt tgaggagtac aggtttcctt   60
gtaggatttt tttttaaggc atccattgag aaaaaagaaa tgaacactat cagagaagaa  120
tcctgatgga gatactgttt tgggctagag gtattgaaga ccccttaaga taaaaaatgc  180
atgacttggc tcttcctca gagagctcat actaggtggt caattcacat tggtttctga  240
atggcttgaa aacaatgata tccatttca gagggctgag actggatcta gaattggcac  300
ttcaatgctt ggcagtactt ttgatcttct aatatgccct cttgttttcc anaacaatat  360
tgacaacgat aattcattga aaatttacnt cn                               392

```

<210> 9150

<211> 327

<212> DNA

<213> Homo sapiens

<400> 9150

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aangtgtaga gatgcattct cactatgttg cccaggctgg tcttgaactc ctgggnctca   60
agtgatcctc ccgtctttac cttccaangg gttgggatta cagggtgag ccactgcacc  120
cagtcccatt ttacttaa atcaaatca aatcttcagt gtntactta ttttgggtgt  180
taattccatt atacaccgtc ttatttcatt aatttcata ttgtgccaga caagatataa  240
aaataattca actccagnca ataatnccat ctgtcttcat gtgaccagaa taannagctt  300
ctgctcccaa natggaagcc acagtaa                                     327
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<210> 9151

<211> 446

<212> DNA

<213> Homo sapiens

<400> 9151

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gtgaaagggt gttgaatfff gttaaatact tttcctgtgc ctaatgaagt gatcttgtaa   60
attgtaatff aatcttatct attctcatgt ccaaacactc aaganaaaac tataaggaac  120
tatatttaca aaataaatca taactttaca aaaagggcat aaaatagcat tttggcaaaa  180
acttaactta ggtaatctga aggtatctaa ctgtatcaat tttaaaaata taaaaatata  240
gctttatgac gaaatfffft ctgattaaaa aagtaaaact tcatttgctg gttataanac  300
aatatgttca tttanaaaaa aagtggacat cctgggctaa catggtgaaa ccccgctctt  360
actgaaaaat acaaaaaatt tanccnggcg tngtggcggg tgcctgtatc ccacctactt  420
gggaagctna agcaggaaaa ttgcnt                                     446
```

<210> 9152

<211> 406

<212> DNA

<213> Homo sapiens

<400> 9152

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aattgcacat ctgttcacag aggttggcaa aagacactgg aagtgattgt gaaatccaca 60
ttgtgattcc tcaggaatca gatcctagaa ggggggtgcc agagctgtcg gcacaccgtc 120
ccaggagtct gcctgtgcag ctcccagcca ggcaagaagc cctgaaggca gagtcccagg 180
tggacacagc tggacgcctc tctgacaatg gtggctctgg tggagaacct ctcggtgtct 240
cttctgcacc tctcaaggct gcaaagtgcc aaatactctt ttccaaccag ctcccgaatt 300
ccccctcca tctgggactg catgtcctgc ttanctgatt caagcaatga tttcaccttt 360
tcatanacaa ggacattgtc ctcatcaggg cttgcacat cncctc 406
```

<210> 9153

<211> 550

<212> DNA

<213> Homo sapiens

<400> 9153

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gtatagcttt caggaagcag gaagactttt ctctttttaa atgatagaac ataaatactg 60
aaacaatgac attggaacat ctatccattc ttgtttcggt ggaaagtcta tctaattcag 120
cttctggacc gactgttcgt ttttccatga tctcttcctg caggtttgct agaagtcctt 180
ttcccccat aaacaccttc ctttgggana tttgggtgcc ttcctttttt aaggttttta 240
aaactaaaat gatttataga ctatccgtat cctgtcanag ttgggcaagt gaatggatca 300
tatttgcgtg ggtcactctg attataggac ttcactgttt cttgaactaa aagtgaaga 360
tttattattc tattaatgct cataaagtca ctcttttgat gagccataac ttctctttat 420
gaagantgtg tatgccagtc acctatgata agganaaaa aatccanact tctaacatat 480
tccctcacat tccctgcaac attaacagtc ttgaaacctt atntaatccc agggganaat 540
```

gccccnggat

550

<210> 9154

<211> 401

<212> DNA

<213> Homo sapiens

<400> 9154

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cagcacaata tttcatttat ttattgtata agtttggcaa acagcacaaa aatccagcaa 60
catttaaaac atataaaaaa gtcaaagtct aaacaggact agggattttt ttttacatca 120
ttagaaataa cgagtacaca ttttaagatt ctgcaaagct agcaaaatga anatgcttgc 180
cttctgaaca tatactacaa acacacatac aaaaaaacia tataatttat ctttacaaaa 240
attacagcca agcaatagaa aagaaggatg ttnatgatga agatagcaac acatatgttt 300
agtacatata tcttacacat tgaaatgcta catcttatac cctgaaatgc catgtgtnta 360
gagccnngca nagtaaattt aggctcntta ctggaggtta a 401
```

<210> 9155

<211> 581

<212> DNA

<213> Homo sapiens

<400> 9155

```
ctagcaaagt ggtttattct ttcaacttat tgctggaaga agtcctttaa acaaaccagt 60
gcanagaaaa tgcctatcaa aagtatcagt ttttcagctt tcttcaccac tgcttttagat 120
gtatcatttt tataatttta tctcttcatt tttttaaaga gctgctactt cagatgacag 180
taactctttg gtgtttattt ttatttccaa gattgtgatt tttttaagag gctactttaa 240
ggctgtgaat tgtctcactg tcttttcact ctctcttttt agttcttcaa tatgggcac 300
caagcgctct agaatgtgat gagacctcag ttctctctct tccaaaaatc tggtagctat 360
tgaaccaagg ggagatacag gcaaggaaca ctcatgtnaa cccaattcca atttcatcac 420
```

catttcagaa agatgacgan tttctaattt gagtgacca gctgatccaa aatctcctta 480  
 tgctctactg ctttgtcttc tgccttttgc tctctgctct gaatcccttt cctntntga 540  
 agaaaaacct ttggtggaan ccatattgan atccccccga n 581

<210> 9156

<211> 435

<212> DNA

<213> Homo sapiens

<400> 9156

ctcattgtga aagattttct ntntattatc aaatctctgc tatagaaaca ctgaaaaaaaa 60  
 tgggaaaaaaaa aatcactggg anangcagca taaaatgggtg gctgaaaaca anaactctgg 120  
 gagccaatct cagctctact cccttactag ttgtgccccn taggtaggat ccttcaacat 180  
 ctctgcttca actnagccat ttgtaaaact ggggtaacag tacctatctc agagtaaagg 240  
 ggactaaaca agttaacact tggaaagcat ttaaaanaaa gcccagcaca taagtgttat 300  
 atgtatttgt aaaacttttt aaaaatctca actgggttaa cttttccatg gatctttcag 360  
 gtccttaccc atatacattt ttttanatgt gttacantaa gtatgtatat acaantctgt 420  
 anccttttta ttccn 435

<210> 9157

<211> 512

<212> DNA

<213> Homo sapiens

<400> 9157

aagatggagt ttcgctcttg ttgccaggt tggagtgcaa tggcgcgac ttggcttact 60  
 gcaacctctg ccttgcagtt caagcaattc tactgcctca gcctctcaag tagctgggac 120  
 tatagacatt caccaccaca ccagctaata tttttgtatt tttagaaaat tttgtatatt 180  
 tanaaaaggt ttcacatgt tggccaggct ggtcttgcac tcctgacctc aggtgatccg 240

cccacctcag cctcccaaan tgctgggatt acaggcctga nccactgtgc ccancctca 300  
 agtnactctt aaacctactg aagttagaca atcaataact gaaatgacat catctttctt 360  
 gaatgtttta ggaaataaaa ttccttcttc tgacaaactt taaatgtgtt cttganttcc 420  
 ttgcctcccn cticctctgg gaattttctt ccctanctgc tcnctttcat tatcaanaaa 480  
 atattccctt cccccctttt accttatacc ta 512

<210> 9158

<211> 468

<212> DNA

<213> Homo sapiens

<400> 9158

cataggtaaa atttttatth atgaatgtgt ggacacatga ctttggatcc agccagccag 60  
 tgacataaat aaacttgagc aaaagtttca agctaganga tatatatgta tagaaaatta 120  
 tatatttgtg tgtgtgtgta aggcctcttg gaacagtgcc acaaactgg acaccaacca 180  
 acanaatcct ccgctccttt gaaatttcca ttaanagcac aatgggggta attataccag 240  
 gatgctccaa tcgctctttc catcttgtgc actcacatgc ccgccaaca tgaaatgttc 300  
 gcctgctccc ttccaatgtg atggttggtg aacttatctt tagtgtcatt tgataagcct 360  
 ttgtgctcac anaananaca tcccactgac ccagccactg gtcattgtct ataccagttc 420  
 acatcaaagc aggcgccttt gtcaggttcc nctcnaatat ccattccc 468

<210> 9159

<211> 223

<212> DNA

<213> Homo sapiens

<400> 9159

ggtaactgct tctttactac ttgatgtna aaaagtgtta gcttgctacc taaagtaagn 60  
 tttttggcta atcagcaaan tccatttcca aggncttcaa gtatgatctg gccaacacca 120

cagaagatga aaagcagaat cccacggttt tgganttggg gcancggaaa ctacatgaac 180  
tcggantcag gangtccagg gtctancact catctactcc tga 223

<210> 9160

<211> 330

<212> DNA

<213> Homo sapiens

<400> 9160

gttttctact gaaacttatt atttgccatt aagaattgca aactatacta ctaagaatga 60  
acaacattct cttcattaag cctttttcaa aacacacgan acaaagctcc ccttttggtca 120  
agggtgtccca cacattacca ctgcagctcc cagcacagcg gcgcaccatg aactcggacg 180  
tggagcccaa ggaatggaga tcgcaccagc ctccctgtct tccccacccc aactacaccc 240  
nagggagaaa ggatacnang aaatacccta tgtcttcaat gcttgggggg ctgggggtgt 300  
cctctgtctac caantgggcc ggtcantgcc 330

<210> 9161

<211> 517

<212> DNA

<213> Homo sapiens

<400> 9161

gaagtccaac ctggccatcg ctttatattt ctgcataaga naagcacagt tganatgctg 60  
gcttctgggt tcatacctgt gctaaagcaa ggcttctttt ttccttatgt tacttttttg 120  
agacaaggct tcactctgtg acccaggatg gagtgtggcc acacaatcat agctcactgc 180  
aaccttgatt tcccaagctc aagtaatcgt cctgcctcag cctcccgagt anctgggatt 240  
acaggcgcac accaccaggc ctgactcttt ttttttccct ccggtanana tggggctctcc 300  
ccatgttgtc canactgggt tcaaactcct gagctcaatg atcttcctgc ctcggcctcc 360  
caaagtgtg ggatttcagg tgtgagccac catccccgga acttttcttt tcaaaacata 420

cattaaaatg gaaatgaata ngaacancca gtggctgtga tgcacaaaaa cccctgtctg 480  
gaaacatgcg tctangttat cttcccnct ttgccaan 517

<210> 9162

<211> 599

<212> DNA

<213> Homo sapiens

<400> 9162

aagattttat gtaatgttta tttttttaat tcccatccta actttggctt taatccttac 60  
ctctcatttc cattcttttc ttgaaatcc aattaaaaaa aaaaaaaaaa aaacaaagtg 120  
tttaaaatca caattatcta aagtcataat aaaatttnc tgtctccaaa nagggggaaa 180  
acacaccact tttattttta tgcagcattt tcaaatatgc atgtcaatat atattttata 240  
aactatttta aataaaaacc ctncatcctt tgagggttatt gacattttct agttcactga 300  
cacatctccc ataatacaat agttctattc attttcatga atgaggtggg aactacacta 360  
aaaagtagga ttttaatccc tgaggtgcca gttaaaatgg gacnangttg cccttgcaac 420  
acaanatttt aaaaatcagc cttaaataat aagcatggat catgctattt gaatcaaaat 480  
ccctcccata gcatgaaatc ctttaggaaa tggcatttat tgggttaatt caccngctat 540  
tcccaccenc agctataaga tcttcctttg gcnaggaata cccaaccag gaattttct 599

<210> 9163

<211> 480

<212> DNA

<213> Homo sapiens

<400> 9163

aagatggagt ctactctgt caccaggct gaagtgcagt ggcatgatct ctgctcactg 60  
caacctctgc ctctgggtt caagcgattc tctgcctca gcccccgag tagctgggat 120  
tacaggcacg tgccaccatg cccggctaatt ttttttgtat ttttagtaaa gatggggtct 180



caccatattg gtcaggctgg tcttgaactc ctgacctcgt gatctgccccg cctcagcctc 240  
 ccaaagtgct gggattatan gcataanccn nccatgcctg gcctaaaaaa ctttgttttc 300  
 tngaccatac ttatcatggc tccttgata caaaaaaatc ttgggctcag ttaaacattt 360  
 atggctctttt atgttaccaa gtactgaaac tgggtgaaca cnagccacaa attcctgaat 420  
 nctgttcctt ggtgataatg gaanccaaaa atctccaaaa atcnttttta naaattgcta 480

<210> 9164

<211> 204

<212> DNA

<213> Homo sapiens

<400> 9164

catattgggtt gttttgtggt ggtaattgag ctgggaaaaa ttcaaaattg ggtcataatt 60  
 aatggtaact aaacanattt gtgaatatgg gacatctgtg gtcttgaaaa catcagtatg 120  
 attgtcccc atatttcttc ancctggaca ataaaaacan acaggggagg ggggtaaagt 180  
 gcantaaant acgttgagtg atnt 204

<210> 9165

<211> 376

<212> DNA

<213> Homo sapiens

<400> 9165

cacgttttat agtcctttta tttgaaattc agtgtaaate actcttaaac tataaattca 60  
 cagttgttgg aggttttttt ttactttaaa tgatgtgaaa gcatttggtc cattcaaagg 120  
 cccctatgcc tttgaatgac atattctcag taacttcttt gccagtaact anagtatgtg 180  
 agactgagta actataatgt gcatatttca anaattagct tcccgtgca ttataacaca 240  
 tttcctagga aagcctttgt atttttcata gccttttcac atatccctca tttanaant 300  
 cacagtgttg cagttttact ttgtttcana ngggaaggcc atcttggttg cataaggggg 360

acanaaaata taatat

376

<210> 9166

<211> 356

<212> DNA

<213> Homo sapiens

<400> 9166

gtanatgatg gggctcttacc atattgccca tgctgggtgc aaactcctgg gctcaagcaa	60
tcctcccacc tcagcgctccc gagtagctgg gaccacaggc acccaccacc atgccacact	120
aaaatttttt ttttgggggg ganggtaaaa aangggcttt accatgttgc ccaggctggt	180
gtcaaactcc tgggctcaag cgatcctccc acctcagcct cccgacatgt aaacgggtggc	240
tacatttccg cacaatcccc gcggtctccc tcattctgtt ttacaactac tcccacataa	300
agtaacgtan aanacaanc cccgttattc cttanaaag tagactggan cttgca	356

<210> 9167

<211> 473

<212> DNA

<213> Homo sapiens

<400> 9167

acattagtat ttacatttat ttaacgtatg cagtttacac actcattatt aaacaaaatt	60
gggaatgcaa acaaataatc aaataccata agcattatca aataaaataa ctggcactag	120
tggtataagc atattaatgg acctgggtaa ggaaaagtga tggaagaaga ctgcagccca	180
tggcattttt ctttttacca aaagaaaacg ctcagtagca ccataatggt aatacttaaa	240
agaaatacat aagatagaac attttaactg ctatcattga ggtaaactg cttttattta	300
agtgaattat acaggaaatt aacagtacag gcagtatttt ggccaacttc tgcttatgtc	360
agctgancat tgtccataaa caaaagcnaa agaaaataat gctaatacata catggaactt	420
ttgttcttgg gtacaattcn gcccctgcc ttgaattcct nggntggnaa aaa	473

<210> 9168

<211> 452

<212> DNA

<213> Homo sapiens

<400> 9168

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aatagacag ggtcttgctc tgttgcccag actggagtgc aatggtggaa tcatagctca   60
ctgcagcctc aaactcctgg gctcaaatga tgcttccaca tctgcctccc aaagtgttgg  120
gattacaggc gtgagccacc acacgtatcc ggatccagtg cggttttaat gtancataag  180
agttgaacac tgattaaaac ctttttcata ctcatcaata atcaacagca ttcattagat  240
ttttttctgg tacagtgtct ctggtactga atagagttgg tgtacacact aaaggttttc  300
tcacattcat cacattttga ctgtcttctc cacaatggac ttcctcatga atagtaagtt  360
caganagttg gctacaactt ctgctgcact gaacacactg gtagggttnc tcctcancat  420
gggttttctg gtgttcaata anaticantac at                                452

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<210> 9169

<211> 439

<212> DNA

<213> Homo sapiens

<400> 9169

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aaaatgggga aggtttatta aggtttttcc tcaagaggaa cagccaatct cttgcttctt   60
gagagaagca attaatggga aatgtntgtc acaccttggg cccagaacca caggaggccg  120
cttctcagca tgcccaacga acatacatca tccccaatc ccatTTaaag ctcatTAatg  180
tctacaaaac agaatccacg ttgccttccc agaaaacaga actaggaacc cagtcaaagc  240
ctccagctgt tctcaacaag aatattttaag caagacaggg caataaatgg actgcacatt  300
caacaaaccc atgatgaaac tgcagtaaaa tccaggatca aagaaatgtc tggactacat  360
tttcaagaat aacttacagt ttttacattt tggggaacat aaatactaaa aactgggttn  420

```

ttagaacgcc tcaaanctc

439

<210> 9170

<211> 513

<212> DNA

<213> Homo sapiens

<400> 9170

gagatggagt tttgctcggt gccaggctg gagtgcaatg gcgcgatctc ggctcactgc	60
aacctctgcc tcccagggtc aagcaattct cctgcctcag cctcccaagt agctgggatt	120
acaggggccc gccaccatgc ccgactaatt tttgtatfff tagtaaanac ggggtttcac	180
catggctggt ctggaactcc tgacctcgtg atccacccgc ctcggcctcc caaagtgtg	240
ggattacagg catganccac tgcgcccggc cactaatcca tattacaaa ttaaagcctc	300
naaattaacg ttttatctca attatagtca ttctgttgca aggaactfff aanaacaatg	360
ttggttacca atgtnaccaa ataaatgcaa ctttaagttta aattacccaa gtggttacca	420
actgataact taaattaagg ctgaaggtna ccgaaaaaat aaaaattaat tccnctcct	480
aaaccggtnt ttaaaattcc naaagccacc aaa	513

<210> 9171

<211> 497

<212> DNA

<213> Homo sapiens

<400> 9171

acagttaaag aaaaagggtg ttatttaggc catcaactag gatcataata aataacgtaa	60
tataactaat taataacaga tcttctcatg catttatcgt gttataaat atagaagaaa	120
gctggcttac agggctgttg ggacaaattt ggaaaagtgt atttggaat tacacagtaa	180
aagttaacag tgttgactat cagattctct tttctgtcag ttttagaat acatccccta	240
tacatctgtg aataaatggt aatggtctct tagagtttct actttttgtg aacatgccag	300

agttaagtaa attgtcaaag gatccagggt gacaatgtgt tatttgtaa tatttcta 360  
 gaaaaacaga tcttagaaaa atgaactctt ctgcatttca ttggtanagg ctgatatatt 420  
 acaagccgga atcattcaac aataaaaaaa gtcctccatg aaataaaacc cnaaaattat 480  
 ttatcnataa tnacngt 497

<210> 9172

<211> 525

<212> DNA

<213> Homo sapiens

<400> 9172

gagacagant ttgtctcttg ttgccaggc tagaatgcaa tggcatgac tcggctcatt 60  
 gcaacatctg cctcctgggt tcaagcgatt ctctgcctt agcctcctga gtanctgana 120  
 ctacaggcgc ccgccacaac gcctggctaa ttttttgtnc ttttagtaaa natggggctt 180  
 caccgtgttg gccaggctgg tctcgaactt ctgacctcag gtgatccacc cgcctcggcc 240  
 tcccaaagtg ctgggattac aggcgttagc cacggcgccc ggccaagaat tttcatatga 300  
 taggatgagg catgactctt tcaagtatta acaacgctgc anaaagtgag ttggcagcac 360  
 anttgctccc agtgagacat tggtcttita ngggtttttt gtatttaaata tgaactgcac 420  
 aaaatgaaac ggggccttgc caaaaaatcc tgggtgcttgc tccattcncc antggggggc 480  
 cgtcncgtgt tttgtcttca aaaacctngg acancctatt ccccc 525

<210> 9173

<211> 425

<212> DNA

<213> Homo sapiens

<400> 9173

ggcagttgaa aaaaatatat ttatttcaat ttgttggtaaa agtttattga nanccaagtt 60  
 tgcctgcaag tgaaaaaaat gcagcaacga aaaacaggga acacggggca cataataata 120

ttctaanact ttgtgccatt aagttaaaaa tatctgttca taaaaaaatt gggttccttt 180  
 tccacctccc acccccnaat tggaattttc aggcitttaa atttaagtna ttcccctggt 240  
 ctgaggatat gatctcttgc cattttttct tcaactgtta cttgtgaggg ttttaatttg 300  
 aaatgataac ttaatagggt tctctttgga gtgaaatttc ccattgtagg cncaggaaa 360  
 aacaaggcaa aanctgcant tagcgtctca ttttccatt tnaaaactct ctcgggccct 420  
 nacct 425

<210> 9174

<211> 533

<212> DNA

<213> Homo sapiens

<400> 9174

gcaaaaaaaaa tcttttattg gcatgaaaat aatgttgtaa atggcaccaa atattccact 60  
 taaatgcata tacagtatta nagtcaaaaa ctattttatc cctctttgct gtttttcccc 120  
 cttctgceca ctttcctggg tgttgggggg gcccgctgac aacagtcaca aatccagcga 180  
 cctgatggaa tagcaccaag gccacacaa aaagtatgat aacctctgtc acacatatca 240  
 canaacatca tttcttcttc atggtggggg tgtccacata taatgcatgt tttacattcc 300  
 atacactgcc atgggtaggt cttaatcata aaaacaagct ccattgtcat atccaggcaa 360  
 gaaagatggc cactattctc acattgggan cagtgtataa gtgattcacc tttcctttct 420  
 tgttggantc cttaccttca aanaaattcc acatatacat ttggaatgaa ctttggttg 480  
 ttnccaagaa ntganttgga aaattccaaa ctttggaac actttcttng aat 533

<210> 9175

<211> 456

<212> DNA

<213> Homo sapiens

<400> 9175

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 cacagcataa aaattgtcag gaacagtgca ttctctttac antatgaagt gaactaaggg 360  
 gttgggttgg ttcaattctg gcanccatt ccanaaaaaa aaccctcaa nttgacagtg 420  
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<210> 9176

<211> 382

<212> DNA

<213> Homo sapiens

<400> 9176

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 gcctgaaact tggccanaaa aagctccagt cctgggcctg taaaaatggg cgctgggant 180  
 gtctgaagcc ggcacggtgt cccctgcgtt gtcggccctt gcaggtgaag tgtgtgtcnt 240  
 tccccactt tccccgaat ggcaccacg gcctcctgct gganccttc cggggccccc 300  
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<210> 9177

<211> 473

<212> DNA

<213> Homo sapiens

<400> 9177

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 gtacagtatt ttagtagtta catgattagc aagcaacaga gaagtagtga aagctgaaga 180  
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 anttagtatg caacctatag ggcaaataaa actgctatat aggtnggtaa ttttgcatth 360  
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<210> 9178

<211> 354

<212> DNA

<213> Homo sapiens

<400> 9178

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 gatcatagct cacacagaat tccaaattaa agtggactcc attatctccc tatattttgc 180  
 aaacaatgct ttgtataaca cttcttttaa aactataaag agacagcaag ctgaaacttt 240  
 tttcaaagca cacaagaaat gtttacttga aaaangtgct gaggggagaa gggagtgaaa 300  
 aatcctttta ctatttccca ctacaggaca gccnctnnca gactangaac aagg 354

<210> 9179

<211> 242

<212> DNA

<213> Homo sapiens

<400> 9179

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